

# CORPORATE SUSTAINABILITY REPORT 2018

# SOCIAL RESPONSIBILITY – A STRATEGIC PLATFORM FOR SUSTAINABLE BUSINESS DEVELOPMENT



For more information about the company, please visit our website:

[www.sistema.ru](http://www.sistema.ru)

## Contents

Address of the Chairman of the Board of Directors	2
Key metrics	4
Public recognition	6
<b>ABOUT THE CORPORATION</b>	<b>10</b>
Business overview	12
Mission, strategy and values	16
Geographical spread	18
International cooperation	20
Membership in advocacy organisations	23
<b>RESPONSIBLE INVESTMENT</b>	<b>24</b>
Business model and development strategy	26
Investment ecosystem	33
Social responsibility and sustainable development policies and practices	44
Economic results and effect from investment programmes	59
<b>EFFICIENT MANAGEMENT</b>	<b>72</b>
Corporate governance highlights	74
Ethics and anti-corruption efforts	77
Risk management	82
Supply chain management and procurement	86
HR management	90
Environmental impact	103
<b>SUSTAINABLE DEVELOPMENT PRACTICES OF PORTFOLIO COMPANIES</b>	<b>114</b>
Telecommunications and digital services	116
High technology	124
Forest industry	132
Healthcare and pharmaceuticals	138

The consumer sector	146
Agriculture	150
Real estate	154
Electric power	158
Hospitality business	162
Finance	166
<b>ANNEX</b>	<b>170</b>
About the Report	172
Key awards and achievements of Sistema Group	178
Glossary and acronyms	182
Aggregates	186
Compliance with GRI and UN Sustainable Development Goals	190
Compliance with the UN Global Compact	197
Contact details	206



# Address of the Chairman of the Board of Directors

GRI 102-14



2018 witnessed Sistema's 25th birthday. A quarter of a century old, the Corporation is an intrinsic part of the "blood stream" of the Russian economy, whose whole industries would be unthinkable without us. We stood at the origins of Russia's mobile telephony and private healthcare, worked hard to save and amplify the nation's science and engineering expertise in microelectronics and radio technology, and built the country's largest chain of children's goods under a brand that is over 70 years old. We have spent the last few years creating large operators in the timber and agricultural industries whose products are coveted globally and investing in spheres with strong exports substitution potential that are critical to the nation's technological self-sufficiency and a well-balanced economic evolution.

These achievements in combination with our unique experience and knowledge form a strong basis for future success. Ambitious both in deed and in planning, we are intent on becoming Russia's strongest investment company matching the world's investment leaders in market capitalisation, return rates, and efficiency (both economic and social/environmental). The only way to achieve it is through rigorous investment discipline, meticulousness in curating projects, profound analysis of financial and non-financial risks, and unfailing adherence to international sustainable business standards in terms of ethics, openness, and transparency, the building blocks of investor and partner trust.

We strive to transform the Corporation into a classical investment company and a role model to our portfolio assets in everything related to management. We are definitely headed that way, having implemented a raft of tools and mechanisms typical of the finest investment firms, set up a family of funds, and started to raise third-party capital to finance major transactions like the one where we acquired a group of pharmaceutical businesses and combined

them under the Alium brand into a single strong market player. Seeing a high degree of trust towards our work among outside investors, we set ourselves the long-term goal of making Sistema attractive and accessible to any investor from anywhere in the world.

This goal can only be achieved through steady evolution both in financial performance and in ESG metrics. Investment funds and banks across the world increasingly pay attention to environmental and social responsibility as well as governance quality when choosing assets to invest in. Surveys reveal that a vast majority of the world's leading investors have already incorporated these factors in their activities or are currently working on responsible investment strategies. Aware that strong sustainability management practices are conducive to robust operating efficiency, high investor appeal, and sound managerial decisions, we make a point of integrating ESG principles in our day-to-day business operations.

A long-standing champion of corporate responsibility and a signatory to the UN Global Compact and the Social Charter of Russian Business, Sistema is focused on devising its very own ESG strategy. The step will both address the changing market realities and give portfolio companies a clear guideline for sustainable development and the management of non-financial risks and opportunities. A single group-wide ESG platform factoring in both what businesses need and what investors expect will enable the adoption of high standards of governance and reporting along with constructive dialogue with all categories of stakeholders.

Another factor to evolving efficiency and sustainability in all industries where we operate lies in innovations. Sistema's entire history is inextricably bound up with disruptive technologies that change human lives, which is exactly our priority today.

The corporation comprises about a dozen of research & manufacturing companies employing some 15 thousand of engineers, designers, and scientists. We created the country's largest telecom operator that is rapidly evolving into a hub for an entire ecosystem of digital services, including digital banking, big data analysis, and industrial IoT solutions. Sistema's other portfolio companies are also pursuing their own ambitious digital projects that greatly benefit the Russian economy in that they create demand for domestically made electronic components. A case in point is microchips, which underlie the rich tapestry of modern-day products, from heavy industrial systems to baby toys. Microchips made by Sistema's ME businesses are used in millions of smart devices, serving to make human lives safer and more comfortable, delivery chains more transparent, and business processes in over 20 industries more efficient. RTI and Sitronics do research and development in urban safety, while MTS Bank and Sistema Capital refine financial and investment management services through digital and mobile technology. Aiming to benefit the Russian economy in driving non-commodity exports, growing national champions, and lending support to up-and-coming startups in disruptive industries, we leverage our VC funds to invest in the latest solutions in artificial intelligence, machine learning, computer vision, and other fields that shape the future of economy, both domestically and globally.

We work hard to digitalise production processes, invest in hi-tech healthcare and pharma markets, and break new ground in biotechnology. By creating Russia's first private biotech lab, we are venturing a step towards incorporating latest genetic testing into everyday clinical practices, in the hope that innovative diagnostic methods and customised therapies will help our fellow citizens in combating cancer and other dangerous diseases.

We adjusted our strategy of charity and relief investments by prioritising projects that deliver technological solutions to the most pressing social challenges and problems, such as searching for missing people, launching the nation-wide research project Odyssey, and starting new educational programmes in the tech and engineering spheres.

Sustainability also heavily relies on systematic efforts of our production assets aimed at energy conservation and reduction of environmental footprint and climatic and ecological effects. For instance, Segezha Group has invested over RUB 4bn in biofuel projects in the last three years. One of the nation's biggest loggers, the company powers its production lines with timber processing by-products. Chips and shavings make production nearly waste-free in that they replace hydrocarbon fuel and serve as a raw material for fuel pellets, a new exportable eco-friendly product.

In 2019, the analytical agency FTSE Russell upgraded the ESG rating of Sistema, which demonstrated performance improvements both environmentally and socially, while also giving the company maximum points for corporate governance and confirming its status as an FTSE4Good company. This and other accolades from independent analysts testify to the soundness of the Corporation's sustainability strategy whose achievements we lay out at length in this annual report prepared in accordance with Global Reporting Initiative's sustainability reporting guidelines.



**VLADIMIR EVTUSHENKOV**  
Chairman of the Board of Directors  
Sistema PJSC

# Key Metrics<sup>1</sup>

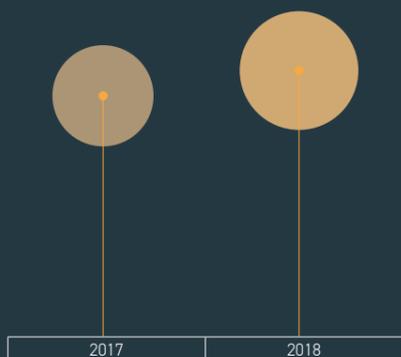
GRI 102-7  
GRI 102-8

REVENUE, RUB BN

777.4

▲ 12.1%

693.4	777.4
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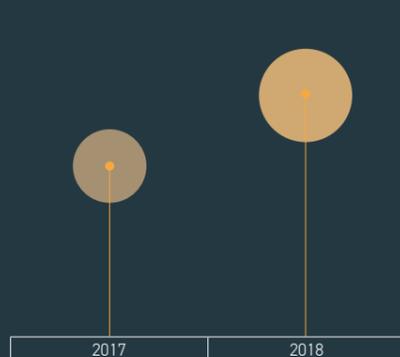


OIBDA, RUB BN

265.3

▲ 34.3%

197.6	265.3
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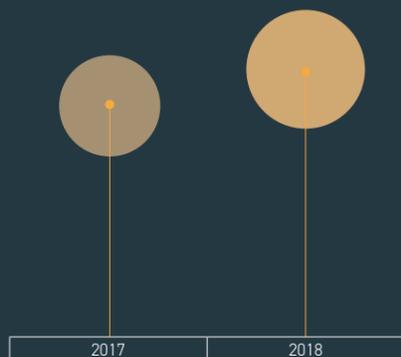


OIBDA MARGIN<sup>2</sup>, %

34.1

▲ 5.6 p.p.

28.5	34.1
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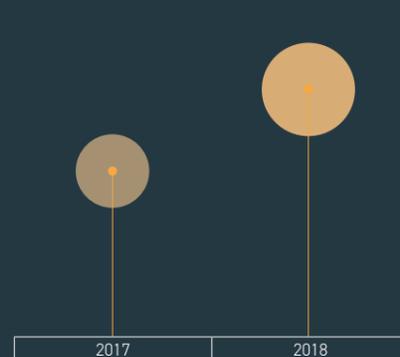


OPERATING INCOME, RUB BN

128.6

▲ 42.4%

90.3	128.6
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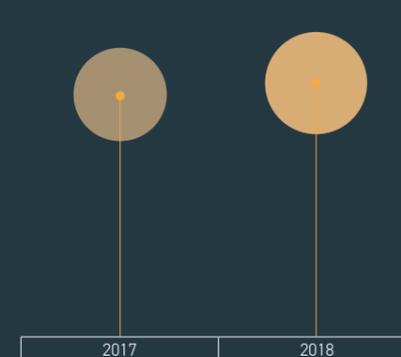


SHARE OF INVESTMENTS IN FIXED ASSETS, RUB BN

124.0

▲ 5.4%

117.7	124.0
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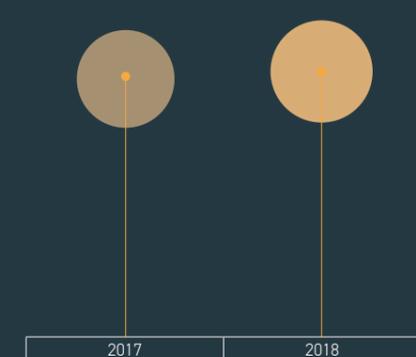


TAX ALLOCATIONS AND PAYMENTS TO SOCIAL FUNDS, RUB BN

108.8

▲ 0.5%

108.3	108.8
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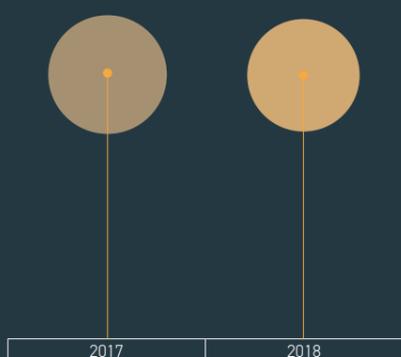


TOTAL HEADCOUNT, FTE

138,892

▼ 2.7%

142,781	138,892
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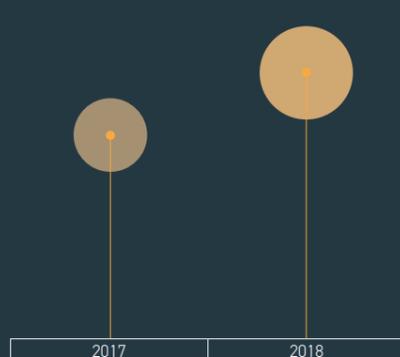


AVERAGE LABOUR PRODUCTIVITY, RUB M / PERSON

5.6

▲ 24.4%

4.5	5.6
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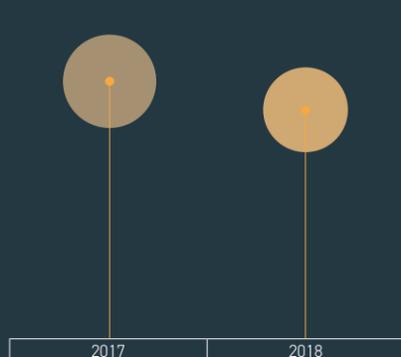


SPENDING ON CHARITY AND SOCIAL PROGRAMMES<sup>3</sup>, RUB BN

1.1

▼ 15.4%

1.3	1.1
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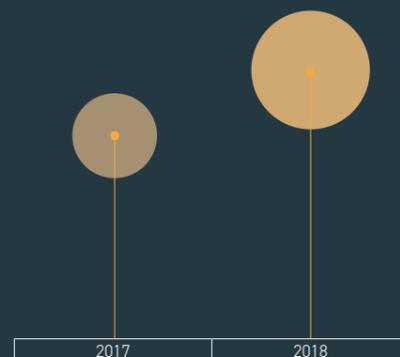


ENVIRONMENTAL PROTECTION EXPENDITURES, RUB BN

0.4

▲ 33.3%

0.3	0.4
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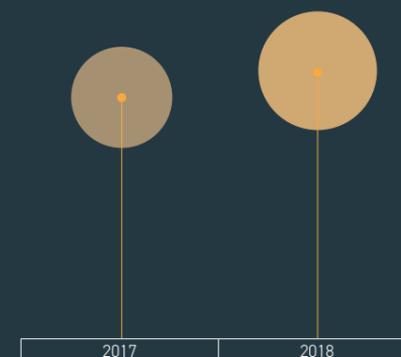


SISTEMA REPRESENTATIVES LISTED AMONG THE TOP 100 RUSSIAN MANAGERS<sup>4</sup>, FTE

93

▲ 12.0%

83	93
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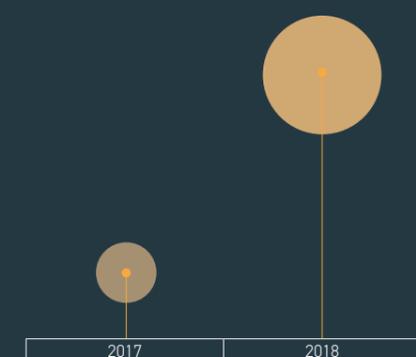


RANKING IN THE LIST OF RUSSIA'S LEADERS OF CORPORATE CHARITY<sup>5</sup>

1

▲ 3

4	1
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<sup>1</sup> Here and elsewhere, the Corporation's financials for 2017 and 2018 are adjusted to meet the new standards IFRS 9, 15, and 16.

<sup>2</sup> Based on adjusted OIBDA.

<sup>3</sup> Including financing of private charity and social projects of Sistema and its portfolio companies, financing of programmes and operational expenditure of Sistema Charitable Foundation (SCF), and donations made by Sistema and portfolio companies to SCF.

<sup>4</sup> An annual ranking by the Managers' Association and the Kommersant Publishing House, first released in 2001.

<sup>5</sup> Based on the annual Russian Corporate Charity Study, a joint project of the Donors Forum, PwC and the Vedomosti business newspaper.

# Public Recognition

GRI 103-3

## A LEADER IN THE SUSTAINABILITY AND SOCIAL RESPONSIBILITY INDICES OF THE RUSSIAN UNION OF INDUSTRIALISTS AND ENTREPRENEURS (RUIE) AND MOSCOW EXCHANGE<sup>1</sup>



▷ Sistema is among the leaders of the RUIE's Responsibility and Transparency index. The Corporation is named among the 12 (out of 111) major companies highlighted for top transparency in the key aspects of socially responsible business practices, including economic, environmental, and social metrics and the quality of management.



▷ Sistema and MTS are also among the 24 businesses that have demonstrated year-on-year growth in their Sustainable Development Vector, a national index reflecting performance in sustainability and corporate social responsibility (CSR).

## RESPONSIBLE INVESTMENT



▷ Since 2016, the analytical agency FTSE Russell owned by London Stock Exchange (LSE) has been incorporating Sistema in its FTSE4Good Index designed to measure the performance of stock issuers in the ESG field against more than 110 parameters. Following the June 2019 review, FTSE Russell upgraded the ESG rating of Sistema, which demonstrated performance improvements both environmentally and socially. The Corporation also got maximum points for corporate governance and confirmed its status as an FTSE4Good company. The index is widely used for the establishment and assessment of responsible investment funds and other products.



▷ Sistema received an Investment Fund Award 2018 as Russia's Best Investment Company. It was also judged to be the best Russian investor in the telecommunications industry, while the reputable international journal Wealth & Finance International (read by 1.9m financial market participants from 170 countries) recognised Sistema's arm Sistema\_VC as the nation's best venture capital investor in the tech sector.



Sistema tops the 2018 list of Russia's most active venture capital investors. The list maintained by RBC (in cooperation with EY, the National Business Angels Association, and PwC) factors in the number of projects invested in throughout the year and covers 214 participants responsible for 685 deals to a total value of \$351m. Some \$100m of this amount was invested by Sistema's various venture capital funds.

▷ Sistema\_VC and Sistema Asia Fund are among the Top 3 corporate VC funds in the 2018 Russian Venture Company ranking. Three Sistema funds are in the top ten positions in the corporate VC segment and No. 15, 21, and 28 among the classical (non-corporate) Russian funds (a broader category that covers more than 40 funds, ranked by the number of deals announced).



▷ Sistema is among the Top three Russian investors in IT startups over 2016-2018 according to the TAdviser analytical agency that performed a survey of Russia's corporate venture capital investments in information technology and digital businesses.

## ACCOUNTABILITY AND TRANSPARENCY



▷ Sistema and its portfolio companies Detsky Mir and Segezha Group scooped national award wins at Change Management. Visionaries, a prize-winning campaign recognising sustainability leaders in the economy, environment, and society. Sistema also received the award in the Best Economic Impact Disclosure category.



▷ According to the 6th annual national corporate transparency study by the Russian Regional Network (on Integrated Reporting (RRN) covering the reports of over 1,100 large Russian businesses in 2018, Sistema is among the Top 5 leaders in transparency among private systemically important companies and the Top 10 leaders in the broader private business ranking, with its telecom arm MTS ranking No.4 in the broad ranking, up a whopping 9 lines from last year. According to the RRN ranking, the transparency level at Sistema is on a par with international disclosing standards, practices, and regulations. The company also got maximum scores in procurement and corruption disclosure in 2018.

## CORPORATE GOVERNANCE



▷ The Russian president Vladimir Putin issued a commendation to the Chairman of the Board of Directors of Sistema V. Evtushenkov "For Professional Achievements and Many Years of Diligent Work".

# #1

## IN DIRECTOR OF THE YEAR



▷ Members of Sistema's Board of Directors scooped some wins at the Director of the Year, an annual award instituted by the Association of independent Directors. The company's independent director Roger Munnings was awarded as the best chair of a Board's audit committee. The Chairman of the MTS Board and a non-executive member of Sistema's Board Ron Sommer won a prize for his contribution to the development of corporate governance.

# #1

## IN TOP 1,000 RUSSIAN MANAGERS



▷ According to the annual ranking Top 1,000 Russian Managers released by the Managers' Association and the Kommersant, Sistema's President Andrey Dubovskov is ranked No.1 among the CEOs of diversified holding companies. The Chairman of Sistema's Board of Directors Vladimir Evtushenkov is listed among the nation's 50 best business leaders. In total, more than 90 senior managers from 19 Sistema companies are ranked among best specialists in their respective professional and industrial categories.

# TOP 50

## CSR MANAGERS

▷ Representatives from Sistema, MTS, Detsky Mir, and Medsi were included in the fourth annual national ranking of top 50 corporate social responsibility managers compiled by the Russian Managers' Association.

<sup>1</sup> Moscow Exchange calculates the daily sustainability indices of Russia's largest businesses (first published on 01 April 2019) based on their ESG performance. The indices are made for stock issuers that provide the most complete information about their activities in the spheres of sustainability and corporate social responsibility.

## EFFECTIVE BUSINESS PROCESSES



Лидер конкурентных закупок

Four assets of Sistema won 2018 Competitive Procurement Awards, distributed to the owners of the best tender solutions among 188 largest businesses of Russia. BPGC is listed among the leaders in Economic Efficiency of Procurement, while MTS is recognised as one of the Procurement Digitalisation Leaders. MGTS was awarded for the Best Supplier Management System, while Steppe AgroHolding received a special accolade For Achievements in Modernising Agricultural Procurement.



The procurement automation project built on the basis of Sistema's Shared Service Centre won the 2018 international automation & accounting contest 1C: Project of the Year as the Best Project in the Central Federal District of Russia, while BPGC won the first prize in the industrial category Fuel & Energy.

## TOP 3 IN TOP-COMM



Sistema and MTS are among the top three performers in the field of corporate communications and corporate relations according to the prestigious national management ranking TOP-COMM 2018 sponsored by the Russian Association of Directors for Communications and Corporate Media. Apart from that, MTS tops the list of the country's companies with best corporate communications and relations departments, while heads of the relevant divisions of MTS and BPGC are among leaders of sub-rankings in their respective industries.

## SOCIAL RESPONSIBILITY

### TOP 15 IN A SOCIAL EFFICIENCY RANKING



The credit rating agency AK&M named Sistema in its first social efficiency rating that covered 300 major Russian companies. The Corporation made it to the Top 15 companies in terms of social contribution per unit of ecological load, and to the Top 20 companies in terms of information openness. Sistema is ranked No.4 among diversified companies, while MTS tops the broader "general" ranking.



CSR initiatives of Sistema's subsidiaries Medsi and MTS received accolades as Russia's Best Social Projects in 2017. In 2018, the second year running, Medsi's signature programme Be Healthy with Medsi! was awarded among the best medical/social projects in Russia. MTS's new social HR project MTS: a Company for Everyone won a prize in the Corporate Projects category.

## CHARITY AND VOLUNTEERING

### #1 IN THE LIST OF RUSSIA'S LEADERS OF CORPORATE CHARITY



The Corporation won the first place in the 11th annual corporate charity ranking sponsored by Donors Forum (an association of Russia's largest charity organisations), The Vedomosti, and PwC. The ranking covers 47 largest Russian and multinational companies with turnovers of RUB 100m+, focusing specifically on their charity activities.



Sistema Charitable Foundation (SCF) and Medsi are among winners of The Good Cause Champion, a national contest of corporate volunteering projects. SCF, which for the first time conducted the grant competition titled Sistema in Support of Good Cause aiming to promote the most relevant and socially significant projects originated by participants of the Corporation's volunteer programme, won the first prize for its Contribution to the Development of Corporate Volunteering. Medsi won the first prize in the Competence-Based Volunteering category for Volunteer Ambulance, a project where doctors from across the medical chain provided ambulance care to the elderly wards of the Ageing Gracefully charity.



For key **awards and achievements of portfolio companies** see Annex 2.

# ABOUT THE CORPORATION

BUSINESS OVERVIEW	12
MISSION, STRATEGY AND VALUES	16
GEOGRAPHICAL SPREAD	18
INTERNATIONAL COOPERATION	20
MEMBERSHIP IN ADVOCACY ORGANISATIONS	23

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*Just a few years from now, we intend to build a leading Russian investment company, which will serve as a platform providing access to unique investment opportunities in the most attractive industries of the Russian economy. The Corporation's strategy prioritises the allocation of funds and management resources towards the development of "points of growth" of the current portfolio, whose capitalisation on a 5-year horizon is expected to exceed \$1bn.*

**ANDREY DUBOVSKOV**

President of Sistema



# Business overview

**GRI 102-5** A visible player on the international finance & investment markets, Sistema is one of the 20 largest public Russian companies listed among the Forbes Global 2000.<sup>1</sup>

The Corporation, whose investment portfolio includes assets in more than 15 industries of the real sector and finance, is among Russia's systemically important enterprises that significantly contribute to the national GDP, the jobs market, and social stability.<sup>2</sup>

**GRI 102-4** The portfolio companies and investment funds controlled by Sistema operate in many countries of the world and across Russia, the key market of the Corporation, and generate about 1% of the GDP and all private investments in the national economy. The timber, agricultural, and hi-tech businesses of Sistema are not only active domestically, but also export their produce to foreign markets.

For the past 3 years, Sistema has been the steady No.15 in the rating of Russia's largest businesses by revenue size, one of the few private non-extractive companies among the Top 20 of RAEX-600, the most prestigious list of Russian business leaders.<sup>4</sup>

## SISTEMA STEADILY DELIVERS IN RUSSIA'S ANNUAL GROSS INCOME NEARLY

1%

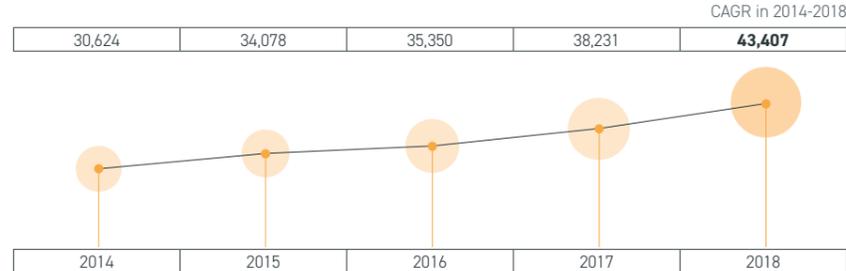
<sup>1</sup> [forbes.com/global2000/list/#country:Russia](https://forbes.com/global2000/list/#country:Russia).  
<sup>2</sup> [economy.gov.ru/minrec/about/structure/depsectoreconomy/2015020801](http://economy.gov.ru/minrec/about/structure/depsectoreconomy/2015020801).  
<sup>3</sup> The statistical report Russia in Numbers 2019, Federal State Statistics Service (Rosstat).  
<sup>4</sup> [raex-a.ru/rankingtable/top\\_companies/2018/main](http://raex-a.ru/rankingtable/top_companies/2018/main).

## SISTEMA GROUP'S CONTRIBUTION TO THE RUSSIAN ECONOMY<sup>3</sup>

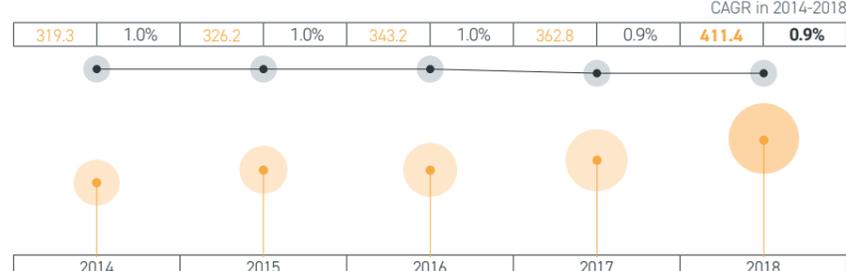
### SHARE OF SISTEMA'S INCOME IN RUSSIA'S GROSS INCOME

The corporation is evolving alongside the Russian economy, demonstrating a strong revenue growth and high labour productivity (at ~40% over the last five years).

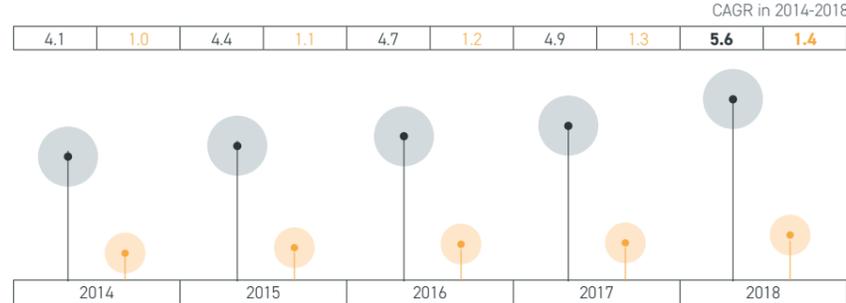
#### RUSSIA'S GROSS INCOME IN 2014-2018, RUB BN



#### SISTEMA'S GROSS INCOME, RUB BN



#### LABOUR PRODUCTIVITY AT SISTEMA AND IN RUSSIA, RUB BN/K FTES



Labour productivity growth rate across the Sistema Group in 2018 is the double of the overall labour productivity rate of the Russian economy.

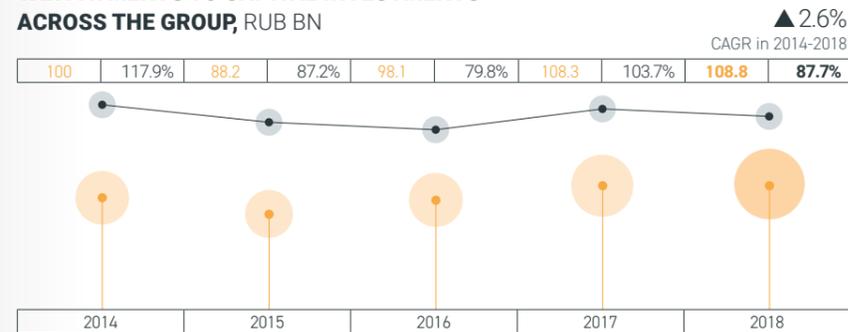
**GRI 102-1** **Sistema PJSC** (hereinafter also, "Sistema", "the Corporation", or, viewed collectively with its portfolio companies, "the Group") is one of Russia's largest private investment companies whose shares are traded on Moscow Exchange and London Stock Exchange in the form of global depository receipts (GDRs).

**GRI 102-10**

### TAX PAYMENTS

Sistema ensures steady tax payments to budgets of all levels, comparable to the Group's investments in fixed assets. In 2018, the tax/investment rate across the Group nearly reached 90%.

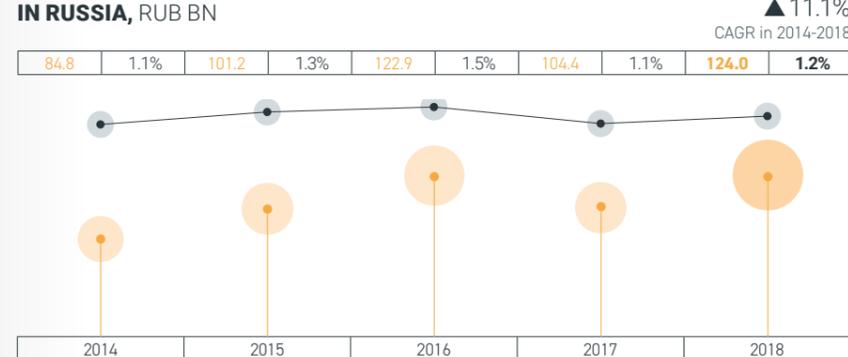
#### TAX PAYMENTS TO CAPITAL INVESTMENTS ACROSS THE GROUP, RUB BN



### INVESTMENTS

Sistema's real investment in various industries, including greenfield construction, expansion, reconstruction, and technical upgrading of existing enterprises, generates >1% of total private investment in Russia.

#### SISTEMA'S SHARE IN THE TOTAL PRIVATE INVESTMENT IN RUSSIA, RUB BN



The Corporation and its various assets are unfailingly listed in RBC's annual rating of Russia's 500 largest businesses.<sup>1</sup> Sistema's portfolio companies are also listed among Forbes Russia's 2018 ranking of the nation's largest 200 businesses by revenue in 2018.<sup>2</sup>

Sistema's shares are listed on Moscow and London Stock Exchanges and included in the calculation base of the key Russian stock indices, while the securities of MTS along with the stock of other 22 largest Russian companies are incorporated in the MSCI Russia Index, which serves as a benchmark for many international investors in Russian assets.

Since 2016, Sistema has been included in FTSE4Good, a stock market index designed to measure the performance of issuers demonstrating strong Environmental, Social and Governance (ESG) practices against more than 110 parameters, including labour rights, human rights, impact on local communities, anti-corruption practices, responsible supply chain management, and climate and environmental impact.

Effective business management directly influences the value of Sistema's intangibles. In 2018, its public assets MTS and Detsky Mir made it to the Top-50 valuable Russian brands according to the consultancy Brand Finance, which ranked the businesses by a number of parameters, such as investment in marketing, capital base, and business efficiency. In the past year, MTS's value went up 23%, to RUB 114.5bn, while the value of Detsky Mir's brand shot up 45%.

<sup>1</sup> [rbc.ru/rbc500/](http://rbc.ru/rbc500/).  
<sup>2</sup> MTS, Detsky Mir, Segezha Group, and Etalon Group.



# Mission, strategy and values

In March of 2018, Sistema's Board of Directors approved the Corporation's new **Development Strategy** setting ambitious targets of value growth, procurement of third-party capital for management, debt reduction, and high operating efficiency, on a par with global benchmarks. Among Sistema's strategic priorities are exposure to new industries and investing in promising technology.

Sistema's evolution from an operational holding company to a classical investment firm brought about change both in practical aspects of investing and in corporate governance, where the Corporation increasingly moves away from direct intervention in the management of assets towards a simpler and a more straightforward paradigm where businesses are managed through their boards of directors and the management of each specific business are directly and broadly responsible for its performance. The transformation is heavily conditional on the communications between the CEO and the Board Chairman, as well as the increasing role of the Board aiming to greatly strengthen the expertise and responsibility of the management of each specific business.

**GRI 102-16** Sistema's management believes that rapid capitalisation growth takes more than just operating performance of current businesses and a healthy balance of debt, investment, and dividends. Equally important is maintaining business sustainability and increasing investor trust, which hinges just as much on transparency and ethics as on Sistema's ability to outstrip market growth rates.

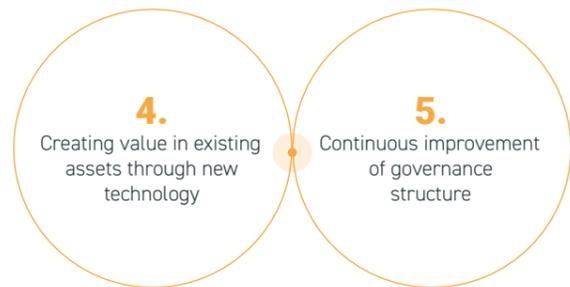
Responsibility towards shareholders and all interested parties is one of the core values of Sistema, which was among the first Russian companies to join the United Nations Global Compact (in 2002) and strictly abide by the principles of sustainable development enshrined therein.

## SISTEMA'S STRATEGY ON A 5-YEAR HORIZON

### INVESTING



### ASSET MANAGEMENT



### INVESTOR RELATIONS



**Sistema is an investment platform giving access to unique investment opportunities in the most attractive Russian industries and emerging technologies**

Sistema belongs to the UN Compact Network in Russia and fully embraces the concept of social responsibility as set out by the Russian Union of Industrialists and Entrepreneurs in the Social Charter of Russian Business, to which Sistema acceded in 2017.

The Corporation abides by the Principles for Responsible Investment and the UN Guiding Principles on Business and Human Rights, as well as the Guidance on Social Responsibility ISO 26000: 2010, in assessing the organisational maturity and sustainability of all portfolio companies and in other aspects.

Sistema's **mission** is to build Russia's best investment company with expertise in multiple industries, a strong track record in managing shareholder and outside capital and a diversified portfolio of assets, predominantly in new and growing industries, with a vast geographic and industrial footprint.

## WHILE ALWAYS ADHERING TO OPEN AND FAIR BUSINESS PRACTICES AND PROMOTING THESE VALUES ALL ACROSS THE GROUP, SISTEMA EXPECTS THE SAME FROM ITS BUSINESS PARTNERS AND RELIES ON THEIR COMMITMENT TO THESE VALUES IN BUILDING RELATIONSHIPS OF TRUST:



**Trust:** over the time of its existence the Corporation has managed to win the trust of thousands of contractors and millions of customers around the world by building strong partnerships with its shareholders, investors and employees. The Corporation is committed to maintaining, strengthening and developing these relationships.



**Openness:** the transparent informational policy of the Corporation guarantees the right of all interested parties to receive reliable and relevant information about the Corporation's business and serves as one of the most important elements of corporate culture.



**Zero tolerance of corruption and unfair competition:** The Corporation stays away from unethical, unlawful or unfair business activities and ensures that its business partners, contractors, employees, subsidiaries and affiliates adhere to the same high ethical standards in all business relations.



**Respect:** the HR policy of the Corporation is aimed at ensuring equal opportunities for all the employees irrespective of their nationality or religion, political views or personal convictions, sex, way of life, or age.



**Fairness and impartiality:** the Corporation takes management decisions on the basis of thoroughly checked information and selects its contractors, partners, and conducts business with them, on the basis of transparent and fair market conditions without any biased preferences or prejudice.

In 2018, **the European assets of Segezha Group joined the UN Global Compact** in confirmation of their support of the UN's values regarding human rights, labour rights, environmental protection, and anti-corruption practices.

GRI 102-12

## THE COMPANY EMBRACES AND SUPPORTS:

GRI 102-13



▶ **The UN Global Compact**  
The Corporation adheres to the principles in the spheres of human rights, labour rights, environmental protection, and anti-corruption practices set out in the UN Global Compact (a high-profile international CSR initiative). Sistema is a signatory to the Global Compact since 2018.



▶ **Social Charter of Russian Business**  
Sistema relies on the guiding principles of responsible business formulated by the RUIE in designing corporate policies and practices in line with sustainable development goals, based on efficient interaction with stakeholders.



▶ **The United Nations Guiding Principles on Business and Human Rights**  
Sistema embraces the UN principles regarding human rights and applies them to interactions with all stakeholders, including its employees, customers, partners, and local communities.



▶ **The UN sustainable development goals until 2030**  
Sistema's investments and activities of its portfolio companies contribute to the accomplishment of the SDGs all across the nation (see Annex 5).



▶ **Principles for responsible investment**  
The Corporation purports to enrich its daily practices by integrating relevant international principles for responsible investment and asset management related to ESG matters.



▶ **ISO 26000**  
Sistema Group companies use the international standard for the internal assessment of their activities and enhancement of business processes as regards CSR (see case study about self-assessment at MTS).

# Geographical spread

## SISTEMA IN RUSSIA

### FEDERAL PLAYERS

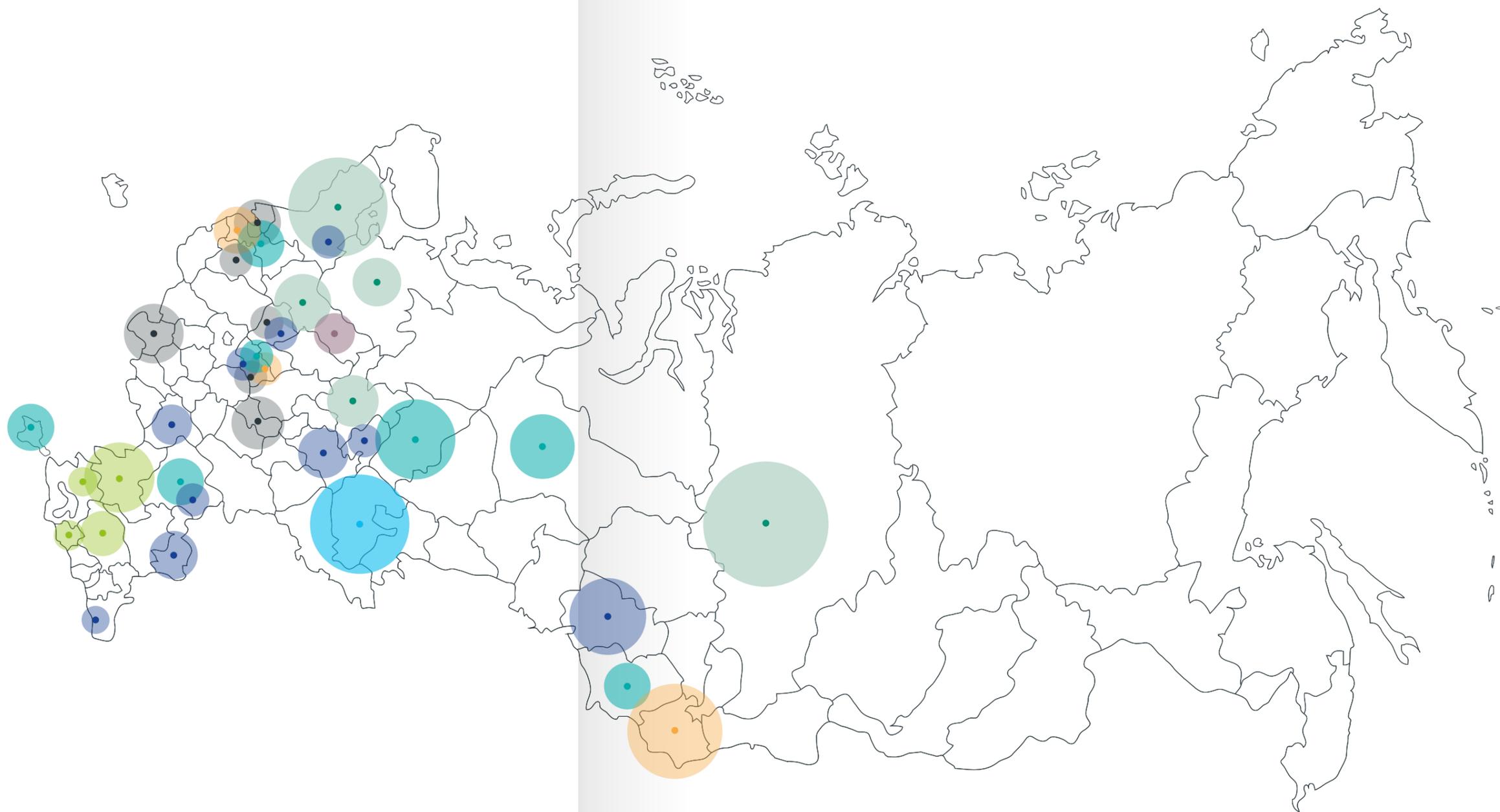


### CLUSTER PLAYERS

	<b>Regions</b> Krasnodar region Stavropol region Rostov region Karachay-Cherkessia
	<b>Regions</b> Karelia Arkhangelsk region Vologda region Kirov region Krasnoyarsk region
	<b>Region</b> Bashkortostan
	<b>Region</b> Vologda region

### CHAIN PLAYERS

	<b>Moscow</b> 3 CDCs 17 clinics 2 hospitals 1 sanatorium 2 wellness centres	<b>Regions</b> Barnaul Bryansk Nizhnevartovsk Perm (7 clinics) Saint Petersburg Volgograd Yalta
	<b>Moscow</b> 3 hotels	<b>Regions</b> Izhevsk Kazan Sochi Novosibirsk Voronezh Yaroslavl Astrakhan Petrozavodsk Volgograd



5 federal players

19 assets

>30 Russian regions

### OTHER ASSETS

	<b>Regions</b> Moscow St. Petersburg Yaroslavl Dubna Saransk Veliky Novgorod
--	--

	<b>Moscow</b>
	<b>Moscow region</b>

	<b>Regions</b> Moscow St. Petersburg
--	--

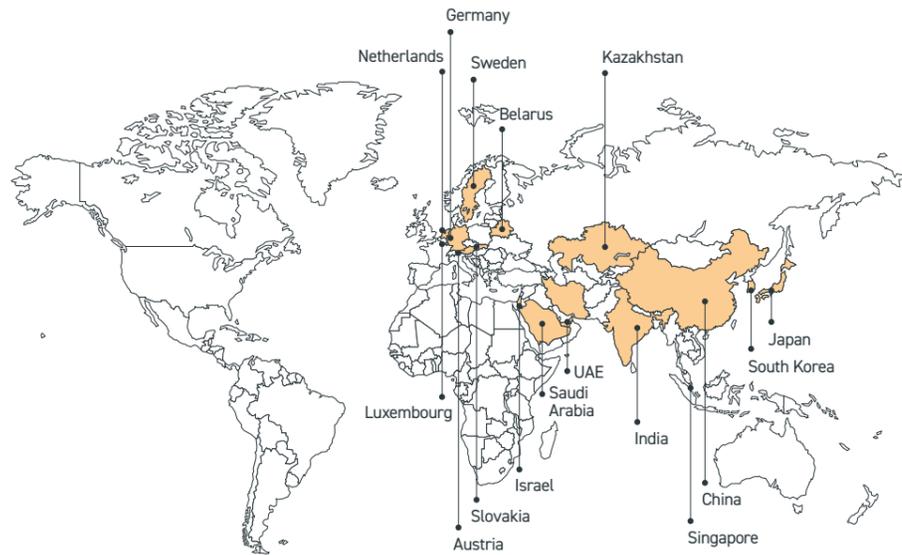
	<b>Region</b> Republic of Altay
--	------------------------------------

# International cooperation

GRI 102-43

Sistema successfully builds partnerships with international strategic investors and actively develops cooperation with other countries in order to attract investments in the Russian economy and enhance the country's export potential through its projects. To achieve this goal, Sistema joins efforts with the Russian Direct Investment Fund (RDIF), Russian Export Centre (REC) and other partners in IT, healthcare and biotechnology, the timber and pulp and paper industries, agriculture, residential development, consumer retail, etc., and expands its footprint by co-investing in growing companies in Russia and abroad through its funds.

## SISTEMA'S PRIORITY GEOGRAPHIES FOR INTERNATIONAL COOPERATION IN 2018:



### KEY EVENTS 2018

**MAY**

- Sistema, Medsi and Siemens Healthineers signed a trilateral memorandum that marked the start of a long-term partnership seeking to develop the healthcare system in Russia.

**JUNE**

- Sistema, Medsi, South Korea's leading healthcare operator Severance Hospital and RDIF signed a cooperation agreement for the purpose of establishing a state-of-the-art diagnostic centre in Moscow. The document was signed during the South Korean leader's official visit to Russia, in the presence of the two countries' presidents.

**SEPTEMBER**

- Russian Deputy Prime Minister Maxim Akimov, who participated in the 9th meeting of the High-Level Russia-Singapore Inter-Governmental Commission, visited the office of Sistema's subsidiary, Sistema Asia Pte. Ltd, which was established to manage the Corporation's investments in India, Singapore and South-East Asia.
- Sistema, RDIF and South Korea's Macrogen signed a trilateral agreement on the development of biotechnology in Russia. A similar agreement was signed between Sistema, Medsi, RDIF and the South Korean company Green Cross Cell.
- Sistema, REC, Skolkovo Foundation and Enterprise Singapore (the Singaporean government agency championing enterprise development) signed a memorandum of understanding related to the establishment of a Centre of Digital Innovations and ICT in Russia and Singapore. At the start of the project, as many as 7 Russian companies showed interest in using the possibilities of the ICT Centre for entering the new attractive market.

**OCTOBER**

- Representatives of Sistema took part in a business forum in Delhi that coincided with President Putin's visit to India.
- Sistema, Russia-China Investment Fund and China's CapitalBio Technology reached an agreement on the setup of Russia's biggest innovative biotech laboratory. The document was signed after talks between Russian President Vladimir Putin and his Chinese counterpart Xi Jinping in Vladivostok.

**NOVEMBER**

- Sistema took part in the Open Innovations international forum - one of the world's biggest events showcasing the key trends and achievements in the innovative areas of economy. There, the Corporation presented its new social and tech initiative, the Odyssey research project (For more information see the "Social responsibility and sustainable development policies and practices" section).
- Vladimir Evtushenkov, chairman of Sistema's board of directors, visited Japan together with a delegation of Russia's Deputy Prime Minister Yuri Trutnev.
- On the sidelines of a meeting between the Russian and Chinese prime ministers, the Russia-China Investment Fund and Sistema reached an agreement on a joint investment in the pharmaceutical company OBL Pharm in the amount of RUB 19bn, with a view to creating Russia's leading pharmaceutical holding company by merging OBL Pharm with JSC Binnopharm to operate under the single Alium brand<sup>1</sup>.

**2018**



“Our task is to create conditions for the two countries' businesses to cooperate. Today, Singapore does not only offer good opportunities for cooperation, but is also a global hub and the gate to the entire South-East Asia and Asia-Pacific. Everyone would like Singaporean businesses to come to Russia and Russian businesses to feel confident and find partners in Singapore.”

**MAXIM AKIMOV**  
Russian Deputy Prime Minister



“Singapore today is a gate to the markets of South-East Asia and Asia-Pacific. Russian companies that are interested in entering SEA markets may get comprehensive organisational support and consultations on the issues of marketing, sales, finance and investment from our subsidiaries, Sistema Asia Pte. and Sistema Business Scalerator, which have worked in Asian markets for many years.”

**ANDREY DUBOVSKOV**  
President of Sistema PJSFC

<sup>1</sup> In December 2018, Sistema together with a consortium of investors acquired a stake in OBL Pharm for RUB 1.83bn.

### EXPORT OF TECHNOLOGIES: SMART CITY

In November 2018, over 20 Russian companies presented their smart city solutions at the joint exposition of Sistema and Skolkovo Foundation held during the ASEAN summit. It was visited by members of the official delegations of Singapore, South Korea, Laos, Thailand, and other countries. At the Russian booth titled "COLLABORATION – THE FUTURE OF INNOVATION" devoted to the cooperation of the government, business, the expert community and citizens in the creation and development of a single system of digital services improving the quality of life in today's cities, MGTS, Sitronics and VisionLabs presented a packaged solution successfully tested during World Football Cup 2018 in Russia: identification of fans by contactless ID cards for free metro passes, video surveillance for optimising work load of the public transportation system, video analytics with face recognition based on the DNN (Deep Neural Network) technology, and a system for online game broadcasting in fan zones. Visitors were especially excited to see the face recognition system that is currently being used by Singapore's law-enforcement agencies in a pilot project. The police of Dubai, the capital of the UAE, are installing the face recognition system in school buses to make children's travel safer.



### INTERNATIONAL FORUMS

Sistema is a regular participant of the World Economic Forum in Davos and the key international economic forums that are held in Russia:



- ▷ **St Petersburg International Economic Forum (SPIEF)**  
A delegation from Sistema held about 40 business meetings at the SPIEF 2018. The Group's companies signed over 10 agreements with business partners and administrations of Russian regions on the development of digital technology, healthcare and the timber industry, while the Corporation's top managers took part in discussing social, economic and sustainable development of various territories and industries.



- ▷ **Eastern Economic Forum**  
The forum is used for establishing business contacts with Asian partners and developing the Corporation's potential projects in the Far East. Sistema signed a number of agreements on biotechnology development in Russia at the forum.



“

*Our strategy of medical business development envisages building a broad partner network and cooperating with leading biotech companies that have achieved significant progress in genetic and cell technologies. Supported by Medsi's capabilities and clinical infrastructure and attracting best foreign expertise, we aim at bringing state-of-the-art biotechnologies to Russia in order to increase the efficiency of diagnostics and treatment of such socially significant diseases as cancer. Development of new methods of targeted cancer treatment and introduction of other latest R&D achievements open new possibilities in diagnosing patients with cancer, autoimmune and other major diseases.*

**ARTYOM SIRAZUTDINOV**

Managing Partner of Sistema PJSFC

### KNOWLEDGE IMPORTS: BIOTECH

In 2018, the Corporation reached an agreement with leading Chinese and South Korean companies on the development of products and research in the area of bioengineering and integrative medicine, laying a foundation for establishing Russia's first private innovative biotech laboratory that will focus on genetic and molecular research for the purpose of diagnosing and treating socially significant diseases. The R&D lab will use the best international practices in the sphere as well as the accrued biomedical expertise and knowledge of global companies' experts.

# Membership in advocacy organisations

GRI 102-13

Sistema and the Group's companies are involved in the shaping of agendas of their respective industries, modernisation of relevant legislations, and self-regulation of the market through participation in leading public organisations and business associations.

### RUSSIAN ORGANISATIONS AND ASSOCIATIONS:

- ▷ Russian Union of Industrialists and Entrepreneurs (RUIE);
- ▷ Chamber of Commerce and Industry of the Russian Federation;
- ▷ Russian public organisation Business Russia;
- ▷ Issuers' Committee of the Moscow Exchange;
- ▷ Russian Institute of Directors;
- ▷ Independent Directors Association;
- ▷ National Association of Corporate Secretaries and Club of Corporate Secretaries;
- ▷ Russian Managers Association;
- ▷ Agency for Strategic Initiatives (ASI);
- ▷ Russian Risk Management Society;
- ▷ Corporate Lawyers Association.

### INTERNATIONAL ORGANISATIONS AND ASSOCIATIONS:

- ▷ World Economic Forum;
- ▷ Business Council for Cooperation With India;
- ▷ Russian-Chinese Business Council;
- ▷ Russian-Arab Business Council;
- ▷ Russo-British Chamber of Commerce;
- ▷ Belgian-Luxembourg Chamber of Commerce in Russia;
- ▷ EU-Russia Industrialists' Roundtable.

### COMMISSIONS:

- ▷ The India-Russia Intergovernmental Commission on Trade, Economic, Scientific, Technical and Cultural Cooperation;
- ▷ The Russia-Singapore Intergovernmental Commission.

### SISTEMA'S BOARD CHAIRMAN VLADIMIR EVTUSHENKOV IS A MEMBER OF:

- ▷ Management Bureau of the Russian Union of Industrialists and Entrepreneurs (head of the Committee for Industrial Policy);
- ▷ Council of the Russian Chamber of Commerce and Industry (chairman of the Committee for Scientific and Technical Innovations and High Technology);
- ▷ Russian-Arab Business Council (chairman) and Russian-Saudi Business Council;
- ▷ National Council on Corporate Governance;
- ▷ Board of the Moscow Confederation of Industrialists and Entrepreneurs (Employers).

### BOARDS OF TRUSTEES:

- ▷ Fund for Development of the State Russian Museum "Friends of the Russian Museum" (Chairman);
- ▷ Moscow State Lomonosov University;
- ▷ Higher School of Management of St Petersburg State University;
- ▷ Higher School of Economics;
- ▷ Russian Geographical Society;
- ▷ Russian Olympians Foundation;
- ▷ Handball Federation of Russia;
- ▷ Holy Trinity St Sergius Lavra, Moscow Ecclesiastical Academy (from 2018), and the Patriarch's Board of Trustees for restoration of the Transfiguration of the Saviour Monastery on Valaam, and some other non-profits.

Representatives of Sistema take part in the work of specialised advisory bodies of government authorities, industry associations and public organisations, including those related to CSR:

- ▷ Committee for Corporate Social Responsibility and Demographic Policy of the Russian Union of Industrialists and Entrepreneurs;
- ▷ Committee for Corporate Social Responsibility of the Russian Managers Association;
- ▷ The Intergovernmental Working Group of the Russian Ministry of Economic Development for implementing the concept of public non-financial statements in Russia.



**Sistema Charitable Foundation** is a member of the Donors Forum, National Council on Corporate Volunteering and Association of Volunteer Centres of Russia.

**The Corporation's portfolio companies** and their representatives are active members of such industry-specific associations as the Digital Economy autonomous non-profit organisation (MTS), the RUIE Commission for the Health Industry (Medsi), the Union of Timber Industrialists and Exporters of Russia (Segezha Group), the AERONET Association of Operators and Developers of Unmanned Aerial Systems (Kronstadt Group), etc.

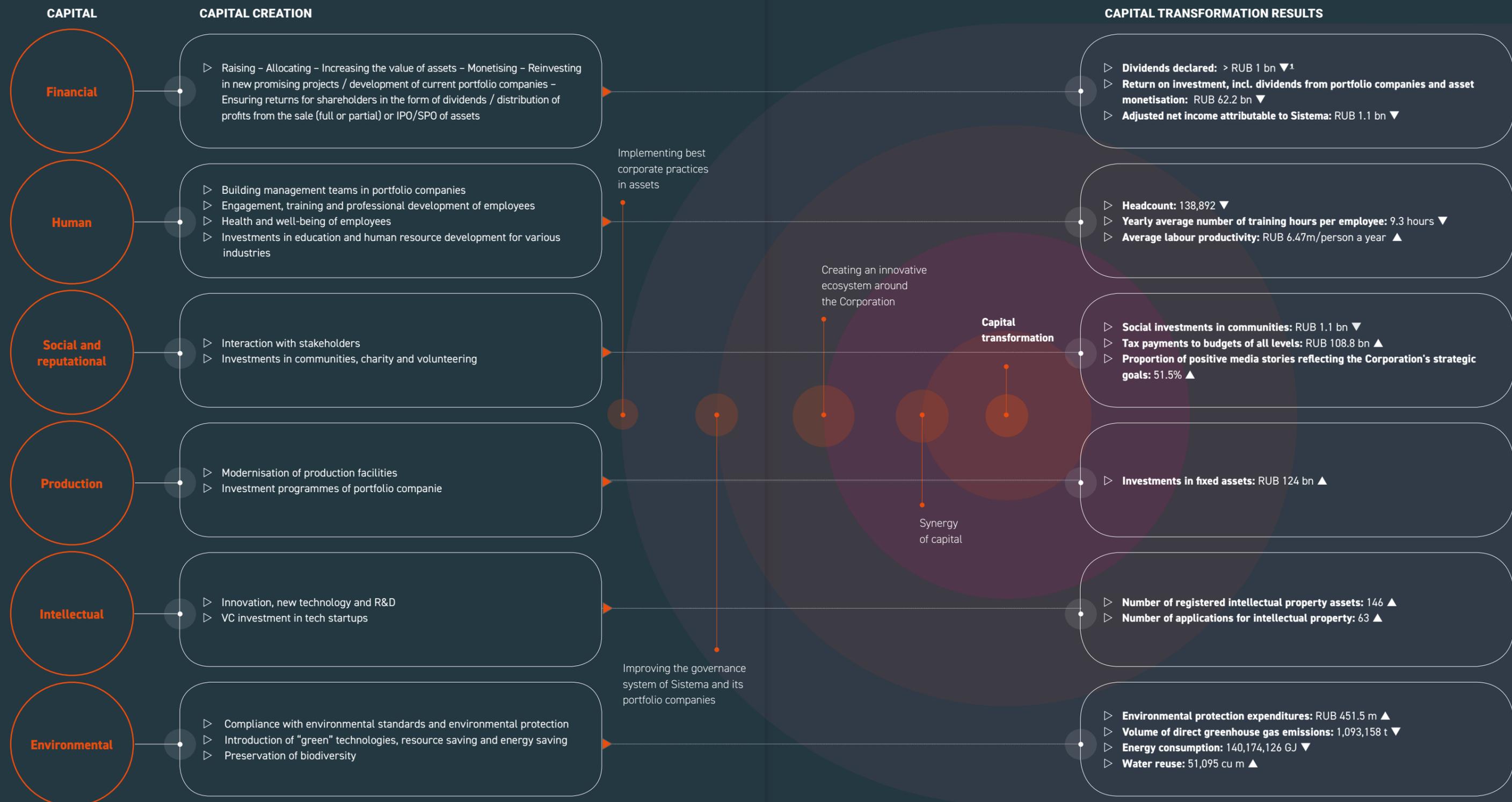
# RESPONSIBLE INVESTMENT

BUSINESS MODEL AND DEVELOPMENT STRATEGY	26
INVESTMENT ECOSYSTEM	33
SOCIAL RESPONSIBILITY AND SUSTAINABLE DEVELOPMENT POLICIES AND PRACTICES	44
ECONOMIC RESULTS AND EFFECT FROM INVESTMENT PROGRAMMES	59

Sistema believes that its main responsibility is maintaining such a level of strategic planning, corporate governance and control that ensures a reasonable balance of financial and non-financial risks and opportunities (environmental, social, technological, etc) for the sustainable development of the investment portfolio in terms of economic efficiency and the Corporation's impact on society and the environment.



# Business model and development strategy



<sup>1</sup> Taking into account the priority of the strategic goal to reduce the Corporation’s debt, the Board of Directors recommended paying dividends for the year in the amount of RUB 0.11 per share, deviating from the current dividend policy (see the Annual Report, page 24)

# Business development strategy

Sistema sets ambitious goals for increasing value, raising third-party capital under management, reducing debt burden and operating costs to an optimum level and further diversifying the investment portfolio to move from a moderately conservative to a more balanced asset structure in terms of risk and return. The Corporation strives to maintain high efficiency at the level of global benchmarks and, in order to ensure target returns, intends to attract partners and increase investments both in current points of growth in the most promising sectors of the economy and in new growing assets and VC projects.

**In April 2018, the Board of Directors of Sistema approved a new concept for the strategic development of the Corporation, which includes:**



building leading players in the most attractive sectors by investing in the development of existing assets and acquiring undervalued companies for further consolidation of the respective markets;



expanding investment opportunities, including by establishing funds and raising outside capital;



shifting focus of investments towards innovative assets with potential for import substitution and export-oriented projects;



organisational and digital transformation of the Corporation.

Sistema has established the practice of involving top management and functional leaders of the Corporation and its portfolio companies in the process of strategic planning, continuous training and raising awareness.

The following events were held in 2018:

- ▷ Three-day off-site strategy session for leadership of Sistema and its portfolio companies, which was dedicated to a joint search for new ways of development and qualitative improvement of the Corporation's business. The session was attended by 79 people: 41 executives of Sistema, 29 executives of the Group's companies and 9 members of the Corporation's Board of Directors.
- ▷ Strategy session of Sistema's Corporate Centre.
- ▷ 22 strategy sessions of portfolio companies.
- ▷ 1 strategy session of funds.
- ▷ 2 conferences of strategists.



“*In the coming years we are going to invest mainly in new, innovative sectors of the economy. Funds will invest in fast-growing startups, in the development of new, often disruptive, technologies. In such cases, the upside can be much bigger – in tens or even hundreds of percent over a relatively short horizon. The advantage of funds is that they will allow us to raise outside capital and earn money by successfully managing such capital. Investments through funds will provide an opportunity to share the risks and, of course, the upside with partners.*”

**ANDREY DUBOVSKOV**  
President of Sistema PJSC

## INVESTMENT STRATEGY

### SISTEMA'S INVESTMENT STRATEGY



“*In the current economic situation, the Corporation must find points of growth and make transactions in the areas with high potential for increasing business value. The most important part of this process is an even more thorough and rigorous approach to investment analysis, selection of targets and ways to create value. Our work as a strategic investor today is searching for projects, not merely selecting them. Therefore, Sistema pays more attention to interaction with the Academy of Sciences, NES and other centres of expertise. We try to finance innovative projects and interesting scientific developments in the early stages. This principle also applies to value creation in the company's existing assets.*”

**ARTYOM ZASURSKY**  
Vice President for Strategy at Sistema

The Corporation constantly searches for investment opportunities, mature undervalued and growing assets in attractive industries, and monitors markets and technologies.

<sup>1</sup> Target share of assets in the investment portfolio.

The investment process at Sistema is clearly regulated by internal documents and procedures (see the 2017 Sustainability Report, page 21). All potential investment projects are registered in the electronic "Bank of Ideas", carefully studied and must receive preliminary approval from the Strategy Department, Finance and Investment Department, Corporate Governance Department and Legal Affairs Department before being submitted to the Expert Council and the relevant committee.

Key M&A transactions and investment programmes of portfolio companies are also subject to detailed examination as part of Sistema's multi-stage investment process. In addition to financial analysis and industry analysis that underlie decision-making for each project, such components as management quality, staffing, state of production base, infrastructure and technology, related social obligations and environmental risks can also be considered for specific projects. If necessary, external consultants and independent experts are involved in a comprehensive assessment.

## INNOVATIVE DEVELOPMENT

Sistema consistently invests in building intellectual potential: science and education, advanced research, tech startups, new developments and digitalisation. The Corporation cooperates with innovation support institutes, creates its own R&D centres, and facilitates the adoption of advanced technologies and organisational innovations in its portfolio companies.

Innovation, digital transformation and new technologies are the focus of the Corporation's strategy. The Group's strategic projects in this area are coordinated at the level of a single cross-functional digital team. As part of Sistema's Strategy Department, a "digital office" has been established that helps teams of Managing Partners and senior executives of assets identify and adopt new technologies in their respective companies.



“Every year, Sistema pays more and more attention to issues of innovative development – and 2018 was no exception. We have developed the digital transformation strategy aimed at a radical increase in the quality of existing business processes and creation of new highly efficient ones through the use of digital technologies. Our goal is not occasional adoption of technologies, but the full-scale optimisation of the business model of the Corporation and its portfolio companies, which will be based on innovations and modern management practices.

Clearly planned actions, an experienced team of professionals and portfolio companies that already know how to successfully develop and implement new technological solutions are the key to achieving the ambitious goals that we set for ourselves in terms of innovative development.

### ARTYOM ZASURSKY

Vice President for Strategy at Sistema

## COOPERATION IN SCIENCE AND TECHNOLOGY



In December 2018, Sistema and the Russian Academy of Sciences (RAS) entered into an agreement on cooperation in the areas of science, technology, innovation, information analysis and expertise. The parties intend to organise examination of the Corporation's high-tech and knowledge-based investment projects, and to work in other areas related to the development and adoption of advanced technologies in various industries. The Corporation and the RAS plan to organise forums, conferences, seminars, working meetings and other events that enhance the intellectual potential of the industries in which Sistema invests.



“Academia should provide a foundation for the future – breakthrough developments that can become the basis for new markets. We need to correctly present to the business the essence of breakthroughs and how they can be used. But it should be business that chooses the form in which this "breakthrough" may be of interest to the market. This is how innovative systems work all over the world. I believe this approach will finally allow us to create an effective innovative system in Russia.

### ALEXANDER SERGEEV

President of the Russian Academy of Sciences

## INNOVATION DAYS

It has become a good tradition to hold the "Innovation Days" for Sistema Group's top management with discussions on the latest trends and potential for their application in companies. Two such events took place in 2018, and they were dedicated to the discussion of topics such as financial technology, cryptocurrencies and ICOs, cybersecurity and many others.



In 2018, the most relevant technologies have been identified for the Corporation's key assets, testing and adoption of which can increase efficiency, streamline processes, develop innovative products and services for customers, and expand current markets.

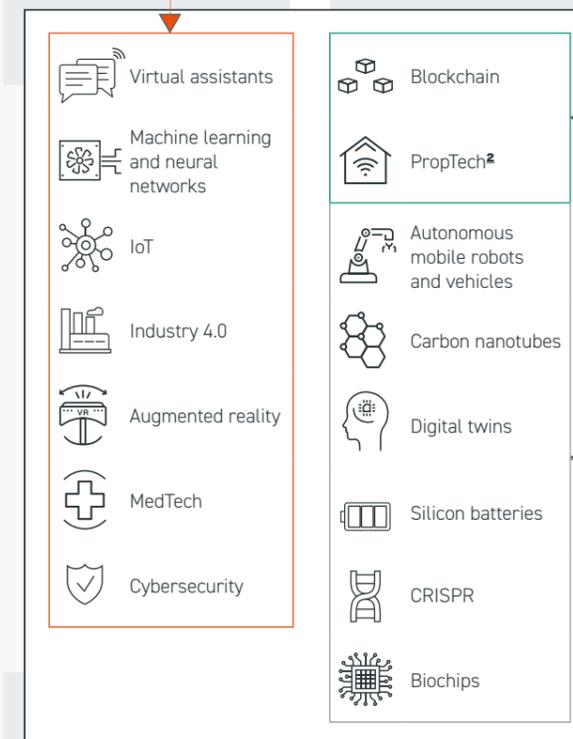
The key criterion for selecting the most promising technologies for the Corporation is the possibility of testing them at the Group's largest companies, taking into account their value, on the one hand, and potential risks, on the other hand, for the assets and stakeholders.

## PROMISING TECHNOLOGY FOR INVESTMENT

### The promising technologies<sup>1</sup>

Large-scale technologies drastically changing the development of economy and society

Open-end technology, possibility to use in a board range of industries



Ability to create a long-term competitive advantage for the company

Technologies that will have the biggest impact on companies' business models in the next 5 years

### Selection criteria

Technologies that can be tested at Sistema's assets to improve the product and/or reduce the development time

### Corporation's investment priorities and approaches

#### 1 Selection criteria:

- ▷ Technologies that are at an early stage of practical application in individual industries
- ▷ Expected to reach the stage of wide industrial use in the mme term

#### 2 Selection criteria:

- ▷ Technologies at the stage of development and search for promising spheres for product use
- ▷ Achievement of the industrial use stage is expected in the long term

#### 3 Market monitoring and analysis

<sup>1</sup> According to analysts of Morgan Stanley, Russell Reynolds, Gartner.  
<sup>2</sup> Digital-projects at real estate market.

RUB 150+ bn

SISTEMA GROUP'S INVESTMENT VOLUME IN 2018

+35%

INCREASE IN INVESTMENT COMPARED TO 2017

**INNOVATIONS THAT ARE DEVELOPED AND ADOPTED IN ALL OF SISTEMA'S PORTFOLIO COMPANIES COVER A WIDE RANGE OF INDUSTRIES AND SECTORS:**

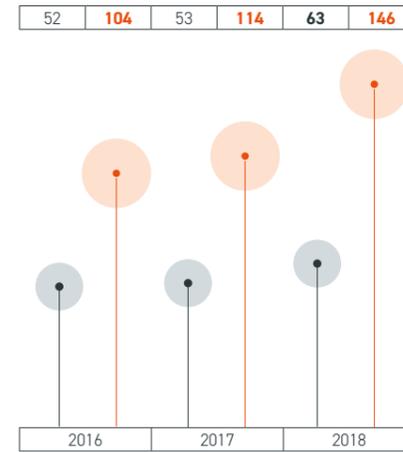
Technology	Potential areas of application	Assets
 <b>Internet of Things (IoT)</b>	<ul style="list-style-type: none"> <li>Optimisation of production and repair/maintenance of equipment;</li> <li>Optimisation of logistics;</li> <li>Data collection and exchange platforms (part of MedTech);</li> <li>Smart buildings (part of PropTech);</li> <li>Thermal and energy efficiency.</li> </ul>	    
 <b>Virtual assistants</b>	<ul style="list-style-type: none"> <li>Making appointments;</li> <li>Tech support and help in product selection.</li> </ul>	   
 <b>Machine learning and neural networks</b>	<ul style="list-style-type: none"> <li>Recommendation platforms for customers;</li> <li>Formation of product cross-offers;</li> <li>Analytical solutions for harvesting and crops control;</li> <li>Analytical solutions for construction control (part of PropTech).</li> </ul>	    
 <b>Industry 4.0</b>	<ul style="list-style-type: none"> <li>Monitoring and automation of production processes.</li> </ul>	
 <b>PropTech – real estate market digitalisation</b>	<ul style="list-style-type: none"> <li>Platforms for electronic interaction with counterparties;</li> <li>Smart construction and smart buildings.</li> </ul>	 
 <b>Cybersecurity</b>	<ul style="list-style-type: none"> <li>Security at the level of process control systems;</li> <li>Protection of personal data;</li> <li>Security of platforms for remote work with patients;</li> <li>Security as a service (SECaaS);</li> <li>Reducing the risk of theft of personal and commercial data.</li> </ul>	   
 <b>Medical Tech</b>	<ul style="list-style-type: none"> <li>Mobile healthcare;</li> <li>Data collection and exchange platforms.</li> </ul>	
 <b>Virtual and augmented reality</b>	<ul style="list-style-type: none"> <li>Advanced diagnostics and visualisation tools in medicine;</li> <li>Visualisation for construction control.</li> </ul>	  
 <b>Block-chain</b>	<ul style="list-style-type: none"> <li>Data collection and exchange platforms (part of MedTech);</li> <li>Equity participation in new businesses through ICO;</li> <li>Testing and development of fintech solutions.</li> </ul>	    

Each of these technologies can be applied in Sistema's assets, giving the Group's companies an additional competitive advantage.

Virtually all the activities of such companies as MTS, RTI, Kronstadt Group and Sitronics are associated with technological innovations that contribute to the achievement of both business goals and sustainable development goals. This also applies to other portfolio companies of the Corporation that implement innovative solutions in various fields, for example:

- Mikron's solutions based on RFID tags help reduce illegal logging, control supply chains and combat counterfeit products.
- The smart system Safe City developed by Sitronics helps ensure public safety.
- The innovative medical and biopharmaceutical technologies used by Medsi and the Corporation's pharmaceutical assets improve the quality of diagnosis, prevention and treatment of diseases.
- Steppe AgroHolding's high-tech dairy farms use smart elements in every process.
- Segezha Group is actively adopting digital technologies in production, such as predictive Big Data analytics, including in the quality control system for paper production at Segezha Pulp and Paper Mill.

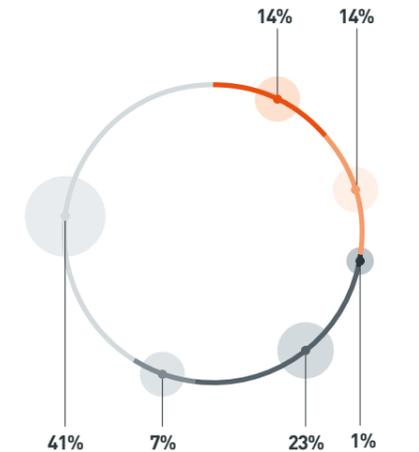
**NEW INTELLECTUAL PROPERTY ITEMS OF SISTEMA GROUP COMPANIES<sup>1</sup>**



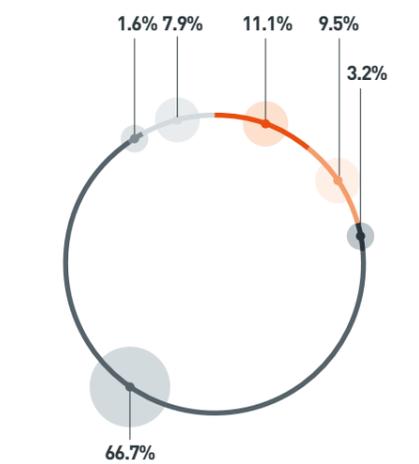
Number of applications for intellectual property items  
 Number of registered intellectual property items

Sistema considers the results of innovation to be a valuable intangible asset and takes a responsible approach to the issue of intellectual property protection in accordance with the established procedure for registering new developments. The Corporation's representatives, as invited experts, take part in international forums and conferences on intellectual property regulation and licensing, including in the countries of the Eurasian Economic Union.

**COMPOSITION OF REGISTERED INTELLECTUAL PROPERTY ITEMS IN 2018, %**



**COMPOSITION OF APPLICATIONS FOR INTELLECTUAL PROPERTY IN 2018, %**



Applications for trademarks  
 Applications for inventions (Russia)  
 Applications for utility models (Russia)  
 Applications for software and databases (Russia)  
 Applications for software and databases (foreign)  
 Applications for know-how

<sup>1</sup> Data for RTI Group, Kronstadt Group, Binnopharm, Sitronics, Medsi and Concept Group.

EXPANDED CHANNELS OF COMMUNICATION WITH THE INVESTMENT COMMUNITY

Investor relations are playing an increasingly prominent strategic role in forming the Corporation's investment model, positioning it as a reliable and transparent investment platform with an attractive asset portfolio and profitability, and attracting new investors from different categories (sovereign funds, endowments, etc) and geographies (Central, Eastern and Northern Europe, US, Canada and Middle East). Therefore, Sistema pays considerable attention to its communication with the investment community as one of its key stakeholders, not only conveying information about the development strategy of the Cooperation and its assets to the target audience, but also receiving important feedback, including independent assessments of financial analysts and rating agencies

For more details, see **Annual Report**, page 25.

A wide range of tools is used for communication with investors, shareholders, financial institutions and partners: annual participation of Sistema's leadership in major global and Russian economic forums, investment conferences of the Moscow Exchange, leading banks and brokers, personal meetings with investors, conference calls, road shows, regular disclosure of quarterly and annual reporting, corporate website and websites of portfolio companies.

In 2018, Sistema created an English-language IR blog on its corporate website, which publishes key news from the Corporation and its portfolio companies, as well as a section with answers to questions from shareholders on the page of the Investor Relations and Dividend Policy Committee, which is designed to increase the effectiveness of communication with the investment community.

STRATEGIC AREAS OF INTERACTION WITH THE INVESTMENT COMMUNITY

Focus areas	Plan
Strengthening investor confidence	<ul style="list-style-type: none"> <li>Continuous IR communications with institutional and private investors, including through participation in international conferences;</li> <li>Transparent and consistent communication regarding key corporate events (deals and monetisations);</li> <li>Presentation of a convenient tool for analysis of key financial and operational historical data of portfolio companies;</li> <li>Improving the quality of disclosure of material non-financial information about assets on key ESG topics, taking into account industry-specific aspects.</li> </ul>
Marketing of non-public assets	<ul style="list-style-type: none"> <li>Improving the quality and completeness of disclosure of financial results of privately held portfolio companies, including preparation of proper annual reports (Medsi, Segezha Group, Steppe AgroHolding, etc);</li> <li>Increasing the transparency of the activities of funds and their investment portfolios;</li> <li>Organising tours to the production facilities of portfolio companies as part of strategy presentations and meetings with management.</li> </ul>
Expanding investor base	<ul style="list-style-type: none"> <li>Targeting new categories of investors;</li> <li>Participation in investment conferences;</li> <li>Proactive interaction with investors using a CRM system.</li> </ul>
Working with retail investors	<ul style="list-style-type: none"> <li>Development of relations with the largest associations of retail shareholders;</li> <li>Enhancing the efficiency of interaction with individual shareholders at the AGM, including by collecting most popular questions before the meeting.</li> </ul>

Sistema participated in investment conferences of UBS, Morgan Stanley, Goldman Sachs, Sberbank CIB, VTB Capital and Renaissance Capital in Moscow, London, New York and Frankfurt. In the first half of 2019, the Corporation's management and IR service held meetings with investors at conferences of Aton, the Moscow Exchange, BCS, Sova Capital, Rosenblatt Securities, Sberbank CIB, Renaissance Capital and UBS in Moscow, New York and London, as well as the non-deal road show in Paris, London, New York and Boston.

The Corporation also began to actively use the digital platform **Closir** for direct work with investors, which allowed it to significantly increase the efficiency of interaction with investors and reach new investor audiences.

Sistema plans to further increase the intensity and quality IR communications, expand its tools and introduce the best practices in the disclosure of material information with a focus on privately held assets. To that end, the Corporation intends to more actively use digital communication channels, modern technologies and new formats for sharing information with investors and shareholders (e.g., webcasts).

# Investment ecosystem

Sistema's investment portfolio includes both public and privately held companies, including vertically integrated industrial groups with a majority shareholding, large enterprises, including joint ventures with partners, in various sectors, as well as relatively small innovative companies mainly in the growing digital economy, in which the Corporation has equity through controlled funds together with other co-investors or indirectly through its portfolio companies developing their own ecosystems via M&A and entry to new market sectors.

Investment funds took a prominent place in the structure of Sistema Group. It topped the list of Russian corporations that were most active in venture capital investment from December 2017 to December 2018. Funds with Sistema's participation accounted for more than 2% of all transactions and about 40% of the total investments made by the top 10 funds of the annual ranking of VC investors in Russia<sup>1</sup>.

ADVANTAGES OF THE FUND-BASED INVESTMENT STRUCTURE OF SISTEMA:

FOR THE CORPORATION AND ITS PARTNERS

- VC funds are much more open to the external environment, which allows Sistema to keep abreast of macroeconomic and technology trends;
- funds can have a more in-depth look at projects allowing Sistema to better understand new business models;
- ability to make riskier investment decisions, participate in more ambitious projects and expect a high return on investment;
- investing in "disruptive innovations" – new products, technologies, services and business models – which over time will transform the Corporation's main business, creating the conditions for fundamental changes in the economy.

FOR STARTUPS

- Sistema\_VC and Sistema Asia Capital are strategic partners for their portfolio companies, providing them with comprehensive (financial, strategic, marketing and organisational) support, opening up the Russian market for foreign startups and providing opportunities for entrepreneurs from Russia to scale up their business in new regions, including together with the Corporation's portfolio companies.

RUB 10+ bn

THE CORPORATION INVESTED THROUGH ITS FUNDS IN RUSSIAN AND FOREIGN STARTUPS AS OF THE END OF 2018

15

INVESTMENT DEALS HAD ANNOUNCED BY SISTEMA IN 2018 – MORE THAN ANYONE ELSE IN THE RUSSIAN VC MARKET



“

In 2018, the concept of Russia's digital development was vividly outlined for the first time. The state announced the details of its vision of the digital economy and specified areas that it is going to actively develop. This spurred investor interest. It is absolutely reasonable that the state proclaims a certain programme and private investment begins to flow into those areas. It results in excellent cooperation.

ALEXEY KATKOV  
Managing Partner of Sistema



“

I think that there are no private companies in Russia with more significant experience of working in India than ours. There is no one with such understanding of the psychology of the Indian consumer, with understanding of how their business and society work. We are successful there and will continue to develop our competences in this direction. Based on our expertise and our understanding of the market, we look at companies that are changing the life of the middle class.

VSEVOLOD ROZANOV  
Managing Partner of Sistema



“

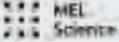
Half of our portfolio is like science fiction! All companies are very different. For example, Ozon is a national champion, a big success story. VisionLabs is the global leader in face recognition, which is confirmed by independent tests. The Israeli startup SQream, in which we invested with Alibaba, is developing a technology in the area of analytical databases for faster processing of data arrays thanks to the GPU architecture.

DMITRY FILATOV  
President of Sistema VC

<sup>1</sup> The annual ranking of the most active VC investors in Russia prepared by RVC.

GRI 102-2

GRI 102-6

Sistema's direct investments			Investments of portfolio companies	Investments through controlled funds in new projects	
<b>Approach</b> Investments in large and medium-sized assets with potential to create industry leaders and consolidate the market within the current and related sectors, as well as in other attractive sectors of the Russian economy. Bringing industrial partners and co-investors in existing and new projects, including through stock exchange mechanisms.			Investments in new market segments to grow business through M&A and VC investments, and entry into new markets with potential synergies	Investments in promising tech businesses, including startups, together with partners. Development of a line of funds specialising in VC investments with a focus on future technologies and PE investments with an unlimited geography of assets.	
Sector	Public assets	Non-public assets		Fund / Investment	Specialisation
Telecoms and digital services	 <b>MTS</b> – a leading telecom operator and digital services provider in Russia and the CIS		Examples of investments: <b>Ticketland.ru, Ponominalu.ru</b> – ticket sales companies <b>Avantage</b> – one of the largest data centres in Russia by the number of rack spaces, located in the Moscow region <b>Litebox</b> – Russian retail software developer <b>Gambit Esports</b> – eSports club	 <b>SISTEMA_VC</b> <b>Sistema Venture Capital</b> – a VC fund founded by Sistema for investments in growth-stage tech companies.  Co-Investors: Sberbank and Maginvest	Deep tech startups rooted in knowledge-intensive, hard-to-copy technologies: machine learning, computer vision, big data, etc.
Finance		 <b>MTS Bank</b> – a universal financial institution providing banking services <sup>1</sup> <b>Sistema Capital</b> – an asset management company that invests in securities and provides services in global financial markets for retail and corporate customers <sup>2</sup>		 <b>Vision Labs</b>	Innovative solutions in the area of computer vision and machine learning for the banking sector, retail and other industries
		 <b>EWUB</b> <b>The SPC Group – Sistema Finance S.A.</b> – an investment platform for investing institutional capital in assets in developed markets of Europe and the US <b>East West United Bank</b> – one of the first international banks in Luxembourg providing individuals and legal entities with all major banking services, including transactional banking, corporate lending and trade finance, and operating in global markets.		 <b>Segmento</b>	Platform that uses machine learning technologies to target digital advertising.
Consumer sector	 <b>Detsky Mir</b> – the largest children's goods retailer in Russia and Kazakhstan	 <b>CONCEPT</b> <b>Concept Group</b> – one of the leading chains of mono-brand stores in the segment of children's and women's clothing and lingerie in Russia, Belarus, Kazakhstan, Armenia, Azerbaijan and India		 <b>MEL Science</b>	Educational products for the study of chemistry using virtual and augmented reality.
			 <b>Ozon Group</b> – Russia's leading multi-category online retailer <sup>3</sup> . One of the top 5 most valuable Russian Internet companies <sup>4</sup> .		
Electric power		 <b>BPGC</b> – a large regional power grid company in the Republic of Bashkortostan (Russia)		 <b>Luden.io</b>	Developer of games with a scientific component
Timber and pulp and paper industry		 <b>Segezha Group</b> – Russia's largest vertically integrated forest holding		 <b>SQream</b> (Israel)	Developer of a leading database for affordable analysis of big data using graphics processing units (GPUs)
Real estate	 <b>Etalon Group</b> , including Leader Invest <sup>5</sup>	<b>Business Nedvizhimost</b> – one of the largest property owners in Moscow with a unique portfolio, providing property and facility management services for commercial real estate		 <b>TraceAir</b> (US and Russia)	Solution for automating processes in construction, which uses data from drones and other sensors to create an exact digital copy of a construction site on the cloud
Hospitality business		 <b>COSMOS</b> <b>Cosmos Hotel Group</b> – one of the largest hotel management companies in the Russian market		 <b>Connecterra</b> (Netherlands)	Developer of AI-based solutions in the segment of food and agriculture.

<sup>1</sup> A joint investment of Sistema and MTS. In February 2019, Sistema's direct share in MTS Bank decreased to 5.0%, and the share of MTS increased to 94.7%.  
<sup>2</sup> The ownership interest of MTS is 30%.  
<sup>3</sup> A joint investment of Sistema, MTS and Sistema VC. In March 2019, Sistema's stake in Ozon became 21.9%, and Sistema VC had 16.3%. MTS exited Ozon completely.  
<sup>4</sup> According to the ranking of the most valuable Internet companies in Russia compiled by Forbes Russia in February 2019.  
<sup>5</sup> Since February 2019, Leader Invest has been part of Etalon Group, in which Sistema has a 25% stake.

MTS investments
Investments 2018

Sistema's direct investments		Investments of portfolio companies	Investments through controlled funds in new projects	
Investments	Consumer goods manufacturing	 <p><b>Vologda Textile</b> – a full-cycle enterprise for the production of fabrics and finished textile products, specialising in the development and manufacture of high-tech fabrics, including for workwear and personal protective equipment, and home textiles<sup>1</sup></p>	 <p><b>Rusnano Sistema SICAR</b> – a European VC fund jointly created by Sistema and Rusnano to invest in high-tech projects at the early stage, as well as in growing and established companies in Russia, the CIS, Europe and Israel</p>	Hard Tech: IT, software, automated control systems, robotics, cloud platforms, communication equipment and systems, solutions and technologies in the areas of renewable energy, energy efficiency, comprehensive security and microelectronics
	Agriculture	 <p><b>Steppe AgroHolding</b> – one of the largest agricultural companies in the South of Russia specialising in crop farming, livestock production, and fruit and vegetable growing</p>  <p><b>RZ Agro Holding</b> – a major producer of grain and oil crops, a joint venture with the Louis-Dreyfus family</p>	 <p><b>Ivideon</b> (Russia and USA)</p>	Developer of a cloud-based platform solution for video surveillance-as-a-Service (VSaaS) and video analytics
	Healthcare and pharmaceuticals	 <p><b>Medsi Group</b> – one of the leading federal chains of healthcare facilities with a full range of medical services</p>  <p><b>Binnopharm</b> – one of the largest Russian full-cycle biopharmaceutical companies with an in-house R&amp;D division.</p>  <p><b>OBL Pharm</b> – one of the leading pharmaceutical companies in Russia, engaged in the development and production of modern medicines in the main therapeutic areas in accordance with GMP and ISO standards.</p>	 <p><b>Sistema Asia Capital</b> – an investment holding company, which includes Sistema Asia Fund, a VC fund investing in high-tech companies in India and Southeast Asia, a PE/VC management company and Sistema Business Scalerator, a platform that helps growth-stage companies increase sales and enter new markets (India, Singapore, Southeast Asia and Russia)</p>	Consumer tech: e-commerce, healthcare, transportation, media, finance and education  Enterprise tech: IoT, VR/AR, platform solutions, Big Data, AI and ML
	High technology	 <p><b>RTI</b> – the largest research and production concern with competences in development, production and supply of radar and information systems, integrated automated control systems, communications, electronic devices, and micro- and nanoelectronics</p>  <p><b>Kronstadt Group</b> – Russia's leader in production of high-tech products and solutions, including unmanned aircraft, ACS and digital cartography</p>	 <p><b>Ecoline</b></p>  <p><b>Licious</b></p>  <p><b>wooplr</b></p>  <p><b>Lendingkart</b></p>  <p><b>ePharmcity</b></p>  <p><b>McBistro</b></p>  <p><b>HealthifyMe</b></p>  <p><b>Faasos</b></p>  <p><b>Kissht</b></p>	Enterprise Digital Rights Management system Full stack online meat gourmet brand Mobile commerce platform for women's fashion Fintech lending company India's largest e-pharmacy Marketing platform for restaurants India's largest digital fitness platform India's biggest "food on demand" company using the cloud kitchen technology Online consumer lending platform based on a proprietary algorithm for assessing solvency with AI elements

<sup>1</sup> The Corporation has owned this business since 2018 in partnership with a consortium of investors consisting of Trinfico Group and National Investment Company.

Steppe AgroHolding owns 50% of RZ Agro Holding  
The stake was acquired in December 2018

## VC MARKET DEVELOPMENT AND SUPPORT FOR TECH ENTREPRENEURSHIP AND EDUCATION

Sistema and its funds are active players in the VC market, both in Russia and abroad (primarily in India), and make a significant contribution to the development of tech entrepreneurship, investing in advanced technologies and high-potential innovative companies.

### HardTech Round



In 2018, Rusnano Sistema SICAR, with support of Sistema Group, RUSNANO and MTS, in partnership with GoTech Innovation, a platform for the work of corporations and VC funds with a startup funnel, for the first time organised an open international competition for industrial technology projects in such areas as robotics, microelectronics, energy efficiency, energy storage systems, green chemistry, innovative materials, software development for the B2B market, innovative solutions for the oil and gas industry, integrated security systems, IoT solutions, and communication equipment and systems.

The competition aimed at finding advanced solutions for various industries collected 430 applications from small and medium-sized technology companies and development teams from 28 countries and 127 cities. Most of the projects (80%) are Russian; the remaining 20% of applications came from Europe, the CIS, Canada, Israel and other countries. Two-thirds of the participants have already announced the start of sales, and 10% have shown their effectiveness with annual revenue.

The results of the competition were announced as part of a joint session of Sistema and Rusnano at the Open Innovations forum in Skolkovo dedicated to new technologies for business and society, where participants discussed approaches to finding and supporting high-potential technology projects that contribute to solving both business and social problems.

Three winners received cash grants of RUB 1m "for high visionary potential and promising technology": Mirow (interactive mirrors for retail), Cera Marketing (a solution for automating and improving the efficiency of key business processes in retail using video analytics tools) and Cyberlit (an open platform for creating projects in virtual and augmented reality without programming skills).



Three more projects – aimed at improvement of the urban environment – became winners at the special category "Smart technologies for smart cities" and received an invitation from MTS to its corporate accelerator MTS Smart Hub and an opportunity of a paid pilot project with the company: Human+ (automated HR management), Djinn Sensor (solution for monitoring environmental indicators in buildings) and Cluster (solutions for smart home).

### #public\_tech



In 2018, Sistema\_VC launched the #public\_tech educational project – a series of public talks and meetings with leading technology entrepreneurs, IT experts, engineers, researchers and investors from Russia, Europe and the US about technologies that change our lives. The first event dubbed **Machine Teaching** took place in October 2018 in Moscow. During the meeting, startups, experts and companies working in ed tech discussed their experience of developing this area in different countries and the way technologies are applied in education.

### Mashines Can See



One of the world leaders in the field of computer vision and machine learning – **Vision Labs** (portfolio company of Sistema\_VC) – organises the annual conference on computer vision and deep learning Machines Can See, which in 2018 gathered nearly 2,000 visitors. The speakers included representatives of Russian universities and companies working in the area of computer vision and machine learning. The organisers also announced the results of a competition dedicated to attacks on a face recognition system, which had several hundred participants. The company will use the gained experience to further improve the security of its products.



**Geosplit** (investment of Rusnano Sistema SICAR) actively supports young scientists and engineers in the oil & gas and petrochemicals segments. The company's experts regularly have workshops for young specialists, participate in student engineering competitions and organise internships at Geosplit's research lab.

## BIG DATA AGAINST CANCER



Sistema\_VC, together with Alibaba Group and other funds, invested in the Israeli company **SQream**, a developer of a leading database that provides unique opportunities for more affordable analysis of fast-growing big data arrays on the cloud using graphic processors (GPUs). GPU-based databases are one of the important technology trends that makes it possible to get more accurate analytics faster and at lower cost. Global enterprises use the SQream solution to reduce environmental impact by cutting energy consumption for processing Big Data and to have significant cost savings when scaling the volume of analysed data to hundreds of terabytes or more. The breakthrough nature of this technology has already been confirmed in such industries as telecom, security, media and healthcare (as an effective tool in the study of cancer). SQream has partnered with Sheba Medical, an Israeli cancer research centre. Thanks to the powerful GPU-based technology, up to 1 PB of the human genome sequences were analysed 100x faster than using previously available methods. The technology reduces time of analysis from months to hours and, thus, cuts years of cancer research on large genomic datasets. For this important work, the company won the prestigious **Big Data Excellence Award**.

**\$26.4m**

**TOTAL INVESTMENT  
IN THE FUNDING ROUND**

## SUSTAINABLE LIVESTOCK PRODUCTION WITH AI



Sistema\_VC led a €2.5m funding round in **Connecterra**, a Dutch startup that develops AI-based trackers for dairy farms.

Connecterra has developed an AI-based cow monitoring system for dairy enterprises and farmers. Intelligent Dairy Farmer's Assistant (IDA) created on the basis of Google's open source platform TensorFlow, is, in a way, a fitness tracker for cows, which is attached to the animal's neck and can detect all the main indicators: temperature, phases of wakefulness and sleep, walking speed, duration of meals and even willingness to reproduce. Based on the analysis of data that is visualised on a smartphone or a tablet, a self-learning system is able to predict the disease of an animal a few days before the symptoms become apparent.

The AI tracker is indispensable for large livestock companies as it allows them to free up a lot of time and human resources. Connecterra has already successfully tested IDA in Europe and also entered the markets of the US, Canada, Mexico, etc. This product is used by Danone, the world's largest milk producer, as well as other industry leaders in the milk production business and in the feed and additives segments.

**THE STARTUP WAS AWARDED  
A GRANT OF**

**€1.7m**

**AS PART OF THE SME INSTRUMENT  
PHASE 2 OF THE HORIZON  
2020 PROGRAMME FROM  
THE EUROPEAN INNOVATION  
COMMISSION**

## INNOVATIVE SECURITY SOLUTIONS

### Road safety with augmented reality



In 2018, Sistema, along with Porsche, Hyundai Motor, Alibaba Group, Rusnano, China Merchants Capital Funds, JVCKenwood and a consortium of sovereign investment funds (Japan, Saudi Arabia, Kuwait, UAE and Bahrain), including the Russia-Japan Investment Fund, participated in a funding round for **WayRay**, a Russian-Swiss startup that produces augmented reality (AR) car displays based on holographic optical elements. The Corporation first invested in this company, which employs ~250 people around the world, back in 2015.

WayRay's holographic solutions create augmented reality in which virtual objects naturally overlap with the real world around the car. The funding will be used to continue development, launch mass production and expand the team of developers to ensure the supply of holographic AR solutions for car makers. The project is already working with approximately 25 major manufacturers of automobiles and automotive equipment. Digitalisation of transport, including the use of holographic navigation systems, will reduce accident rate and improve road safety.

### Machine vision guarding public safety

Today, neural networks analyse about a million parameters on a person's face, which is an "inalienable identifier". The use of biometrics significantly increases the level of security, including during financial transactions. A number of merchants already accept payments using face biometrics. According to independent ratings, the facial recognition algorithm developed by **VisionLabs** is one of the best in the world.



Almost all Russian banks use the services of VisionLabs, and its technology partners include the largest domestic and international organisations in both public and private sectors. Some of the company's biggest projects are the biometric platforms of Sberbank and Rostelecom. The testing of the VisionLabs facial recognition system in the Moscow metro began in April 2018. In the first month of operation, the system helped detain more than 40 wanted criminals. The VisionLabs solution can be used at airports and other crowded places. The system will help not only capture criminals but also find missing people.

1+ m

**CAMERAS CONNECTED TO THE VISIONLABS BIOMETRICS SYSTEM**

### Smart video surveillance systems for smart business



The joint VC fund of Sistema and Rusnano, together with Skolkovo Ventures, invested \$8m in Ivideon, a developer of the cloud-based video surveillance service, which provides clients with access to real-time video from cameras and archives from any device. Ivideon allows to connect cloud-based tools for face recognition, control of cash transactions, counting visitors, detecting queues with minimal cost.

This system helps optimise many processes and improves security, allowing clients to monitor their businesses and quickly respond to emergency situations. For example, installing cameras in a store or a gym can help minimise theft. Ivideon also helps improve customer service. Surveillance cameras installed in restaurant kitchens provide an opportunity to observe the preparation of dishes and make sure that the restaurant staff complies with sanitary standards. This solution increases the degree of customer trust and loyalty. The "queue detector" module automatically detects queues and sends a notification to store employees to reduce the waiting time for customers. Ivideon can also be used to monitor employee integrity: control cash registers (by integrating video surveillance with the 1C accounting system for free) and also identify employees who violate work ethic (are regularly late or leave their workplace) and customer communication protocols or handle goods carelessly.



Currently, about 60% of 4.1 million Ivideon's customers are small and medium-sized businesses. The company already works in more than 100 countries, including India, USA, Europe, Japan and Australia.



Being a recognized center of competence in the field of cloud video surveillance for medium and small businesses, the company also launched a number of innovative video analytics products designed for the corporate segment and the foreign market. With the advent of the new Ivideon Bridge device in 2019, companies now have the opportunity to quickly upgrade their infrastructure by connecting legacy CCTV systems to the cloud without additional hardware costs. The convenient and flexible Ivideon interface for managing video surveillance systems of any complexity opens up great potential for integrating company solutions into "smart city".

## TECHNOLOGICAL REVOLUTION IN CONSTRUCTION



\$2.5 m

**SISTEMA\_VC'S INVESTMENT IN TRACEAIR STARTUP**

Sistema\_VC and co-investors have invested \$2.5m in **TraceAir**, a startup that develops software to automate the construction of residential complexes in Russia and the United States. By using drones and analysing drone data, the company manages to control and adjust the earthworks with high accuracy, as well as to establish communication between all process participants (designers, property developers, general contractors and contractors), which reduces costs and increases the pace and quality of construction.

Construction companies often struggle to keep up with deadlines and budgets. They lack up-to-date information from construction sites, which leads to inefficient planning and, consequently, mistakes in management decisions. TraceAir's construction management software automates one of the most conservative industries and helps coordinate activities. With investor support, TraceAir intends to automate construction as a whole in the long run.

## DIGITAL HEALTH TECHNOLOGIES



\$12 m

**INVESTMENT OF SISTEMA ASIA FUND TO INDIA-BASED NUTRITION AND FITNESS APP DEVELOPER HEALTHIFYME**

Sistema Asia Fund led a \$12m funding round for India-based nutrition and fitness app developer **HealthifyMe**. The funds will be used to expand the company's presence in India and enter other emerging markets: the Middle East, Southeast Asia and English-speaking countries.

HealthifyMe connects millions of users with hundreds of trainers and nutritionists. It enables users to keep track of their calories, set personal fitness goals and measure progress. With the help of online consultations and a virtual AI-based nutritionist, the company introduces millions of people, including employees of large corporations, to a healthy lifestyle. The startup also plans to launch a line of healthy foods, diagnostics and insurance services.

## LABOUR MARKET DEVELOPMENT WITH YOU DO



In 2018, the share of workers in the informal sector of the Russian economy (self-employed, farmers, etc.) was 20.1% of the total number of workers aged 15+ (14.6m people)<sup>1</sup>. Moreover, this number has increased 10% over the past 10 years<sup>2</sup>. In the modern world, being self-employed has become very convenient and profitable. Thanks to the development of technology, it has become easier to find high-paying jobs or temporary part-time jobs through online classifieds or marketplaces.

The **online platform YouDo.com**, created by Russian developers, is by far the most successful in the national market of requests for cleaning, repairs, freight transportation, courier delivery and other services in the C2C and B2B segments. This is a unique platform for finding contractors for everyday and business tasks. A user can publish a task with a certain price and then choose a contractor among those who submitted their offers. All service providers are checked by the platform and rated by users, which guarantees a high quality of their work.

YouDo users can choose which tasks to perform and with whom/when to work. This is a platform that helps people overcome financial difficulties, more effectively monetise their time and realise their professional potential. For some, self-employment is the only way to earn money; for some, part-time work is the last resort in dire circumstances; for others, it is the first step for opening their own small business. YouDo can also be used by people with disabilities.

YouDo works in Moscow, St Petersburg, Nizhny Novgorod, Kazan, Yekaterinburg and Samara, and about 30% of orders are web-based and can be created and fulfilled from anywhere in the world.

In September 2018, MTS acquired a 13.7% stake in YouDo. The funding will be used to expand the geography, further automate the platform, add new categories of services and launch a nationwide advertising campaign.



“

*We have done a lot for the development of small business and self-employed labour in the cities where we operate. We also have an important mission, because we give people the opportunity of becoming entrepreneurs and help the disadvantaged sections of society.*

**DENIS KUTERGIN**  
co-founder of YouDo

5 m

**USERS ARE REGISTERED ON THE PLATFORM, OF WHICH MORE THAN 800,000 ARE VERIFIED CONTRACTORS**

<sup>1</sup> According to Rosstat.

<sup>2</sup> According to Rosstat.

## NEW FORMATS OF EDUCATION

### Gamification of learning



**MEL Science** is an educational platform that helps children study chemistry with experiment kits and VR technology. The project also creates and promotes useful educational video content with over 1m subscribers on social media. MEL Science has offices in London and St Petersburg, and the company is active in the US market. Its solutions are in demand both for home education and within school educational programmes.

MEL Science now works on services that help study physics and biology, engages education professionals to create its products and develops partnerships with schools around the world.

**SINCE 2018, SUBSCRIPTION TO CHEMISTRY KITS HAS BEEN AVAILABLE IN MORE THAN**

**35** countries

**THE COMPANY TRIPLED ITS REVENUE DURING THE REPORTING YEAR**

### Learning in virtual reality



**Luden.io** is a Russian developer of games in virtual reality (VR) focused on the creation of educational programmes. Its mission is to "satisfy curiosity and enlighten people" using the best achievements of the gaming industry.

Luden.io has 8 games, most of which use the technology of immersion in the micro world of the human body, which allows us to understand how emotions are born, how they affect difficult decisions, how infections spread, how drugs fight viral cells and how the brain works, and to explore other features of the human body.

In 2018, the company released a simulator of a machine learning specialist used by educators around the world, as well as Rewire, a game that helps people with Autism Spectrum Disorders (ASD) build teamwork and communication skills. Together with Our Sunny World, Russia's largest rehabilitation centre for children with ASD and other developmental challenges, Luden.io developers tested three prototypes of the game in the classroom, including a keyboard simulator, graphomotor activity and drawing in virtual reality. Such games help create conditions for learning activities. Together with teachers, developers came to the conclusion that video games are beneficial for people with autism because in the game people can endlessly try themselves in different roles in a comfortable environment, move from victory to victory and collaborate to achieve a common goal as a team. After VR classes, children had progress in other exercises as well.

# Social responsibility and sustainable development policies and practices

## ESG PRINCIPLES AND CORPORATE RESPONSIBILITY

Sistema's responsibility as an investment company and its contribution to the country's socioeconomic, innovative and technological development consists in effective management of controlled assets and funds to increase the shareholder value of portfolio companies, in sustainable development of industries and regions where the Corporation operates and in systematic creation of value for the state, business, society and environment.

Sharing the determination of the international financial community to integrate the Principles for Responsible Investment related to environmental, social and governance (ESG) factors into the practice of asset valuation and decision-making, the Corporation takes into account these factors both when choosing priority areas and specific projects for investment and when interacting with its key stakeholders: shareholders, investors, employees, partners, suppliers, consumers, government agencies, nonprofits and local communities. Sistema implements its investment and social programmes on the basis of diverse expertise and mutually beneficial intersectoral partnerships with government bodies, scientific and educational institutions, and public and non-profit organisations with which the Corporation and its portfolio companies cooperate.

## SISTEMA'S RESPONSIBLE INVESTMENT PRINCIPLES

### BEST PRACTICES

- ▷ Compliance with the priorities of socioeconomic development of countries and regions of operations and the global sustainable development goals;
- ▷ Respect for human rights and compliance with laws at all stages of investment activities;
- ▷ Elimination of corruption and conflicts of interest in the practice of investment and asset management;
- ▷ Consideration of the requirements of international ESG guidelines and transparency of business.

### CONSIDERATION OF ESG RISKS AND OPPORTUNITIES

- ▷ Consideration of potential impact of investment projects and operating activities of portfolio companies on the economy, natural environment, employees and society as a whole during decision-making regarding investments, subsequent management and exits from assets.

### EFFICIENT MANAGEMENT

- ▷ Introduction of uniform corporate governance and business ethics standards in portfolio companies;
- ▷ Involving portfolio companies in the regular strategic planning cycle, setting common goals for the entire Corporation and coordinating the management of key sustainable development areas in portfolio companies (human resources, risks, procurement, supply chains, social responsibility and corporate charity);



“*Sistema has two ways to enter a new business: either hire a team and do everything from scratch, or become a shareholder of an existing company and work with its management, provide it with resources and grow it. Subject to the key condition: the business should be completely transparent in the first place.*”

### VLADIMIR EVTUSHENKOV

Chairman of Sistema's Board of Directors

- ▷ Implementation and certification of management systems according to international standards;
- ▷ Formation of a uniform corporate culture and responsible business practices based on ethical values, respect for employees, shareholders and consumers, and care for people and the environment;
- ▷ Stimulation of innovation and organisational improvement in portfolio companies.

### MONITORING AND CONTROL

- ▷ Regular control by the boards of directors of the implementation of strategies and the effectiveness of governance systems and reporting processes in portfolio companies;
- ▷ Monitoring of incidents in companies included in the investment portfolio as part of the risk management system.

## SISTEMA GROUP'S SUSTAINABILITY MANAGEMENT STRUCTURE

GRI 102-20



The aspects of sustainable development and CSR that are essential for the Corporation are managed at both strategic and functional levels, and the basic principles and approaches are transmitted through the Managing Partners and boards of directors of the Group's portfolio companies.

See the **"Corporate Governance"** section.

At the level of Sistema's Board of Directors, the issues of CSR and sustainable development are supervised by the Investor Relations and Dividend Policy Committee, which previews the strategy of the corporate charitable foundation and relevant requests from the investment community and defines the Corporation's position regarding ESG factors. The implementation of this position at the operational level and its communication to investors is the responsibility of Sistema's Vice President for External Relations and the department he heads.

Issues of corporate social responsibility, public non-financial reporting, social communications, regional policy and charitable activities are supervised by Sistema's Vice President for Government Relations and Vice President for Human Resources (with regard to HR policy).



Participation in solving socially significant problems is one of the priorities of Sistema as a socially responsible corporation. We develop advanced technologies in a wide range of industries – from telecommunications and microelectronics to retail and agriculture – and set new large-scale objectives for the corporate charitable foundation aimed at developing effective formats for integrating technology and education for the sustainable development of society and the country.

**ANDREY DUBOVSKOV**  
President of Sistema

If necessary, cross-functional working groups are created in the Corporate Centre to develop common approaches to managing the key aspects of sustainable development.

In accordance with the investment company management model, Sistema's main tasks are adoption of uniform standards, preparation of strategies, KPIs and public non-financial reporting of portfolio companies, control over implementation of CSR programmes/projects and promotion of best practices.

The operational management level of the Group's companies covers the entire range of social responsibility and sustainable development issues: labour practices, natural environment, quality of products and services, human rights, relationships with local communities, occupational safety and health, supply chain management, charity, etc. A number of Sistema's portfolio companies have established special executive committees under the president and/or the management board, which are responsible for coordinating the management of the most significant aspects of the company's impact.

**CSR STRATEGY AND KPIS**

The new stage of the Corporation's transformation, which started in 2018, resulted in a revision of strategic objectives and goal-setting in the area of CSR with further differentiation of ESG and impact investing as the key areas of responsibility of Sistema as an investment company.

The Board of Directors of Sistema set the task of developing and implementing the ESG strategy, which involves:

- ▷ formalisation of the Corporation's policy in the area of responsible investment;
- ▷ development of a relevant KPI system in the area of sustainable development, including for portfolio companies of the Group taking into account their respective industries;
- ▷ further improvement of management processes regarding ESG risks and opportunities;
- ▷ standardisation of information disclosure and increased transparency regarding those ESG aspects that are of the greatest interest to investors.



KPIs in the area of CSR <sup>1</sup>	Value in 2018	Change (vs 2017)
<b>Level of corporate volunteering</b> (share of total number of volunteers involved in general corporate programmes)	10%	+ 2 p.p.
<b>Building a pool of young talents</b> (number of active participants of Lift to the Future)	20,000+ school students trained at 17 temporary engineering and design schools in 11 Russian regions over 5 years	In May 2018, the programme's focus was shifted to developing human capital in the tech segment and addressing social issues <sup>2</sup>
<b>Involvement in joint CSR projects</b> (weighted average – taking into account the scale of projects – rate of participation of the Group's companies in integrated programmes and projects)	77%	+ 10 p.p.
<b>CSR regulation and social reporting</b> (the number of Group's companies with policies in the area of social/ environmental responsibility and respective public reporting, including according to the GRI standard)	76%	+ 2 p.p.
<b>CSR coverage in mass and social media</b> to increase stakeholder awareness	16%	- 3 p.p.

- GRI 103-2 SOCIAL INVESTMENTS AND CHARITY
- GRI 203-2
- GRI 413-1

Sistema strives to ensure that its combined contribution to socioeconomic development is consistent and systematic, thus consolidating its portfolio of social investments at Sistema Charitable Foundation (SCF). The Corporation's priorities regarding sustainable development goals are reflected in the foundation's strategy, the main projects of which are aimed at achieving two global objectives: development of human capital and creation of technologies that improve the quality of life.

**GOVERNANCE SYSTEM AND STRATEGY OF IMPACT INVESTING**

Sistema Charitable Foundation, which has been operating for 15 years and is one of the largest corporate foundations in Russia, accumulates financial and volunteer resources of the Group's companies to achieve maximum investment efficiency. SCF's strategy is targeted at implementing nationwide projects, which are developed on the basis of the needs, experience and competences of all interested parties.

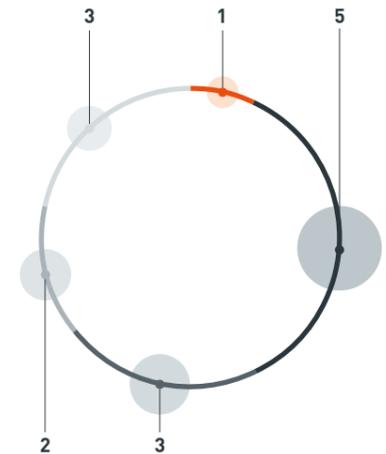
The implementation of social programmes through the corporate foundation accountable to Sistema's Board of Directors (some of its members are also included in the board of Sistema Charitable Foundation, along with

representatives of top management of the Corporation and its assets from among key donors and partners of the foundation for the implementation of strategic programmes) ensures necessary expertise, transparency and coordination between business strategies. The charity strategy is annually reviewed by the Investor Relations and Dividend Policy Committee, approved by the Board of Directors of Sistema and then adopted by the board of Sistema Charitable Foundation.

In 2018, the Charter and the governance system of the foundation were brought into compliance with the latest requirements of the Russian legislation on non-profit organisations. In the reporting year, SCF elected new members of its board – the supreme governance body that determines the priority areas of the Corporation's social investment and approves the annual charity programme. The foundation's board was headed by Felix Evtushenkov, the chairman of the Ethics and Control Committee of Sistema's Board of Directors.

In the reporting year, Sistema Charitable Foundation underwent significant transformation. It assembled a new team, launched a technology crowdsourcing programme, strengthened its projects with technology and began to assess their effectiveness digitally.

**COMPOSITION OF SCF'S BOARD, FTCS**



1	SCF's President
2	The Corporation's representatives
3	Members of the Board of Directors, including Sistema's President
4	Managing partners
5	CEO's of portfolio companies

**1** m 52 thousand  
**PEOPLE IN 81 OUT OF 85 REGIONS OF RUSSIA BECAME BENEFICIARIES OF SISTEMA CHARITABLE FOUNDATION IN 2018**

<sup>1</sup> KPIs approved by Sistema's Board of Directors in 2016.  
<sup>2</sup> Read more on the website of [Sistema Charitable Foundation](#).

The new programme of Sistema's social investment remains focused on human capital and is based on the Corporation's flagship programme, Lift to the Future, which was launched in 2011 and has made a substantial contribution to supporting engineering education in Russia. The updated programme will help the Corporation to use the latest approaches to social investment and implement brand new charitable projects seeking to involve the tech sector in solving social problems and achieving the global sustainable development goals in Russia.

Since May 2018, SCF has been using the Lift to the Future to carry out technological initiatives, publishing and literary tech-related projects, and student education programmes for obtaining unique competences and training a new generation of professionals for the digital economy:

▷ **Technological initiatives of the Lift to the Future** are aimed at identifying and implementing promising technological solutions for social problems. Together with Sistema Group's assets, SCF plans to hold a series of technological contests and research projects that will attract employees of tech companies, independent experts, students, post graduates, scientists and enthusiasts

▷ **Educational projects of the Lift to the Future** are focused on developing own one-year courses in the area of microelectronics, artificial intelligence, educational services, etc. In 2018, the upgraded Lift to the Future launched its first educational project, which was developed together with Mikron for senior students and is devoted to project work in microelectronics

For details, see **Industry report**, page 124.

▷ **The outreach projects** of the programme are designed for a broad audience with the aim of increasing technological literacy and popularising latest technologies. They include a writers' support project, a series of lectures by leading experts and publication of the best foreign popular science books in Russian.

In addition to new initiatives, the Foundation's portfolio includes long-term social and cultural projects, social support programmes to those in need, development of corporate volunteering and creation of an accessible museum environment.

**SUPPORT TO VOLUNTEERING IN RUSSIA**

In 2018, Sistema Charitable Foundation focused on infrastructure problems of Russia's volunteer rescue teams. Absence of efficient search technologies for missing persons encouraged the Foundation to establish a large-scale contest, Odyssey, whose participants were to offer a technological solution for searching for people lost in forest. On top of that, SCF launched two nation-wide grant contests to mark the Year of Volunteers in Russia: the Search Trajectory (a contest for volunteer rescuers) and the System of Good Deeds (for corporate volunteers). The prize of RUB 3m was divided between the winners.



*"Sistema is a socially responsible corporation that invests in telecommunications, microelectronics, high-tech medicine, pharmaceuticals, IT and other advanced technologies that can increase the efficiency of many industries and improve people's quality of life. The activities of Sistema Charitable Foundation, whose top priority is finding and implementing innovative solutions to overcome social problems, continue and complement our strategy."*

**FELIX EVTUSHENKOV**  
Chairman of the board of Sistema Charitable Foundation



*"We see that more and more tasks – both within the sustainable development strategy and at the level of specific social challenges – can be more effectively completed using digital products and services. This is why in 2018 SCF changed its strategy and shifted its focus to technology projects: the foundation now implements a range of long-term inter-related programmes aimed at providing people with opportunities for personal growth in a tech environment and creating favourable conditions for the emergence of innovations in order to tackle social problems and improve the quality of people's lives with the help of modern technologies. The foundation's technological, social, cultural and art projects show how new technologies become solutions and can improve the quality of people's lives."*

**ANNA YANCHEVSKAYA**  
President of Sistema Charitable Foundation

**KEY FOCUS AREAS AND RESULTS OF SISTEMA CHARITABLE FOUNDATION**

1. LIFT TO THE FUTURE, A NATION-WIDE PROGRAMME FOR DEVELOPMENT OF HUMAN CAPITAL IN THE TECHNOLOGICAL ENVIRONMENT		
<ul style="list-style-type: none"> <li>▷ Creating favourable conditions for development of new technological solutions to address social issues;</li> <li>▷ Giving talented tech professionals career growth opportunities;</li> <li>▷ Improving quality of life with the help of innovative technologies.</li> </ul>		
<b>55,000+</b> PROGRAMME PARTICIPANTS IN 2018	<b>81</b> REGIONS OF RUSSIA	<b>32</b> COUNTRIES <sup>1</sup>
<b>The Odyssey research project</b> – a series of technological contests bringing together businesses, the tech community and non-profits for addressing social issues.		
Objectives	Key social partners	Key results
<ul style="list-style-type: none"> <li>○ Develop efficient technologies for finding people who got lost outdoors.</li> <li>○ Create a solution for finding a missing person without means of communication on land or from air in the forest within 10 hours, regardless of time of the day or weather conditions.</li> </ul>	<p><b>~15 partners</b>, including:</p> <ul style="list-style-type: none"> <li>○ Russian Ministry of Communications,</li> <li>○ Volunteer rescue teams: Lisa Alert, Extremum (St Petersburg), Sova (Tver), the Russian Rescuers' Union SPASREZERV (Moscow), Mayak (Novosibirsk), Angel (Moscow), Otklik (St Petersburg)</li> <li>○ AERONET association</li> </ul>	<ul style="list-style-type: none"> <li>○ <b>1,000+</b> scientists, entrepreneurs, students, engineers and developers are involved in developing solutions for finding missing people.</li> <li>○ <b>100+</b> teams from 40 Russian cities applied for the contest</li> <li>○ <b>34</b> rescue teams participate in the contest's events</li> <li>○ <b>7</b> winners of the Search Trajectory contest received <b>RUB 2m</b> worth of grants</li> </ul>
<b>Future Time</b> – a sci-fi short story contest and a series of open lectures on science fiction.		
<ul style="list-style-type: none"> <li>○ Identify and support talented Russian-language sci-fi writers;</li> <li>○ Revive interest of the mass audience in science fiction;</li> <li>○ Identify potential ways of technological development and introduction of new technology in everyday life.</li> </ul>	<p><b>15+ partners</b>, including:</p> <ul style="list-style-type: none"> <li>○ Nauka 2.0 TV channel, popular science publications N+1, Kot Shredingera, Nauka I Zhizn</li> <li>○ Respublika bookstore chain</li> <li>○ the Non/fiction International Intellectual Literature Fair</li> <li>○ St Petersburg Cultural Forum</li> </ul>	<ul style="list-style-type: none"> <li>○ <b>2,000+</b> sci-fi authors from 70 regions of Russia took part in the contest</li> <li>○ <b>1,841</b> short stories were written for the contest</li> <li>○ <b>6</b> winners received prizes from the panel of experts</li> <li>○ <b>5,000+</b> participants of the public programme</li> <li>○ <b>60+</b> experts from various humanitarian and technological sectors popularise reading and creativity</li> </ul>
<b>Microelectronics. Level 157</b> – a one-year advanced training programme in the area of microelectronics that is a new model for supporting talented young engineers and project teams, combining theory with practice and industry requirements.		
<ul style="list-style-type: none"> <li>○ Help student IoT projects to reach the level of independence that offers an opportunity of cooperation with high-tech companies;</li> <li>○ Identify project teams that have a potential for independent development.</li> </ul>	<p><b>12+ partners</b>, including:</p> <ul style="list-style-type: none"> <li>○ Mikron</li> <li>○ Medsi</li> <li>○ MTS</li> <li>○ National Research University of Electronic Technology</li> <li>○ Moscow Aviation Institute</li> <li>○ Moscow Institute of Steel and Alloys</li> <li>○ Tomsk Polytechnic University</li> <li>○ Far Eastern Federal University</li> <li>○ Ural Federal University</li> <li>○ Tomsk State University</li> <li>○ Astrakhan State University</li> <li>○ Moscow State University</li> </ul>	<ul style="list-style-type: none"> <li>○ <b>76</b> students of bachelor's and master's programmes from 9 leading Russian engineering universities</li> <li>○ <b>20</b> teams are taking part in the contest in 2018-2019</li> <li>○ <b>10</b> teachers-experts from leading tech companies and universities</li> </ul>

<sup>1</sup> Participants of the Future Time project

**The Book Collection** – a project for spreading technological literacy by publishing a series of popular science books that describe how technologies influence our everyday life and how they will change society, economy and environment in the future in an easy and entertaining way.

Objectives	Key social partners	Key results
<ul style="list-style-type: none"> <li>○ Popularise printed non-fiction literature among a broad audience of readers of all ages in big cities and regions.</li> <li>○ Develop creating thinking and encourage scientific inquiry among young people.</li> </ul>	<ul style="list-style-type: none"> <li>○ Delo publishing house</li> <li>○ Russian Presidential Academy of National Economy and Public Administration</li> </ul>	<ul style="list-style-type: none"> <li>○ <b>3</b> international best-sellers were translated into and for the first time published in Russian</li> <li>○ <b>10,000+</b> potential readers got free access to technological non-fiction literature</li> <li>○ <b>14</b> non-profit organisations received free books for their libraries</li> <li>○ <b>1,300+</b> books were given out at open outreach events</li> </ul>

## 2. SOCIAL PROJECTS AND VOLUNTEERING

- ▷ Organisation of mass social, cultural and educational events;
- ▷ Development and implementation of social programmes and volunteer events for various categories (children, elderly, disabled);
- ▷ Assistance to social initiatives of Sistema Group companies;
- ▷ Development of corporate volunteering and social partnership – support in interaction with government bodies, non-profit and commercial organisations interested in implementing social programmes.

<h1>29</h1> <p><b>EVENTS IN 2018</b></p>	<h1>440</h1> <p><b>CORPORATE VOLUNTEERS REGULARLY PARTICIPATE IN SCF'S EVENTS</b></p>	<h1>15</h1> <p><b>SISTEMA GROUP COMPANIES INVOLVED</b></p>
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**The System of Good Deeds grant contest** – a tool for supporting the best volunteering initiatives of Sistema Group employees and developing corporate volunteering.

Objectives	Key social partners	Key results
<ul style="list-style-type: none"> <li>○ Get the Group's companies to work on the goals and objectives of the Year of Volunteers in Russia;</li> <li>○ Develop and implement mechanisms to encourage and support employees' volunteering initiatives</li> </ul>	<ul style="list-style-type: none"> <li>○ Russian Managers Association</li> <li>○ National Council on Corporate Volunteering</li> </ul>	<ul style="list-style-type: none"> <li>○ <b>11</b> Sistema Group companies</li> <li>○ <b>38</b> applications</li> <li>○ <b>9</b> grants</li> <li>○ <b>RUB 905,000</b> – the amount of grants allocated to support employees' volunteering initiatives in 19 Russian cities and regions</li> </ul>

**Taking Care of Veterans** – a project for provision of social and medical assistance to World War II veterans and labour veterans in the regions where the Group operates, including former employees of the Corporation.

Objectives	Key social partners	Key results
<ul style="list-style-type: none"> <li>○ Offer veterans access to the best medical services;</li> <li>○ Ensure effectiveness of work to provide social support and services to veterans</li> </ul>	<ul style="list-style-type: none"> <li>○ Moscow city administration</li> <li>○ Moscow City Council of Veterans</li> </ul>	<p>Starting from 2015:</p> <ul style="list-style-type: none"> <li>○ <b>11,000</b> veterans have participated in the programme</li> <li>○ <b>2,000</b> veterans have received free rehabilitation treatment</li> <li>○ <b>RUB 250m+</b> has been allocated for the programme</li> </ul> <p>In 2019, we plan to launch a programme of high-tech medical services for veterans with a budget of <b>~RUB 60m.</b></p>

## CULTURE AND ART: NEW TECHNOLOGIES FOR EDUCATION –

a number of important initiatives aimed at preserving and popularising the country's cultural and historic legacy, digitalisation of the museum environment and making it more accessible.

Long-term programme of supporting projects of the **State Russian Museum (St Petersburg)**.

Objectives	Key social partners	Key results
<ul style="list-style-type: none"> <li>○ Make it possible for a broad audience in Russia and abroad to see the best Russian masterpieces, including through introduction of new formats and technologies of interaction with audiences.</li> </ul>	<ul style="list-style-type: none"> <li>○ Russian Culture Ministry and regional cultural authorities</li> <li>○ Fund for Development of the State Russian Museum "Friends of the Russian Museum" and non-profit partnership Virtual Russian Museum</li> <li>○ Government of the Republic of Altay</li> </ul>	<ul style="list-style-type: none"> <li>○ <b>880,000</b> participants of the Russian Museum's projects that were supported by SCF, including:</li> <li>○ <b>220,000</b> visitors of exhibitions opened with SCF's support ("Catherine the Great in Russia and the World," exhibition of unknown works and sketches by Kazemir Malevich, "Henryk Siemiradzki and a colony of Russian artists in Rome")</li> <li>○ <b>110,000</b> visitors of the international landscaping festival Imperial Gardens of Russia</li> <li>○ <b>200</b> cultural and education centres "Russian Museum: a Virtual Branch" opened in Russia and another 25 countries</li> </ul>

**Cultural Weekend** – a federal outreach project under which the best Russian museums offer visitors free entrance for 1-2 weekends, giving them an opportunity to learn about the culture and history of the country and its regions.

Objectives	Key social partners	Key results
<ul style="list-style-type: none"> <li>○ Develop formats of free cultural and outreach events for society in partnership with leading cultural organisations</li> </ul>	<ul style="list-style-type: none"> <li>○ MTS</li> <li>○ Steppe AgroHolding</li> <li>○ Russian Culture Ministry</li> <li>○ Russian Society of Military History</li> <li>○ Rostov region's culture ministry</li> <li>○ Yekaterinburg Museum of Fine Arts</li> <li>○ Culture department of the Yekaterinburg administration</li> </ul>	<ul style="list-style-type: none"> <li>○ <b>70,000</b> people took part in the event, including:</li> <li>○ <b>20,000+</b> at the State Historical Museum</li> <li>○ <b>4,000+</b> at the Rostov Local History Museum</li> <li>○ <b>1,000+</b> at the Military History Museum of the Russian Society of Military History</li> <li>○ <b>5,000+</b> at the Yekaterinburg Museum of Fine Arts</li> <li>○ <b>4,000+</b> at the Russian Museum in St Petersburg</li> <li>○ <b>2,500+</b> at the Radishchev Museum in Saratov</li> <li>○ <b>5,000+</b> at the National Museum of the Republic of Altay</li> <li>○ <b>2,000+</b> at the National Museum of Karelia</li> <li>○ <b>3,200+</b> at the Tsiolkovsky Museum in Kirov</li> <li>○ <b>20,000</b> in the Cultural Marathon – the World Ocean Museum (Kaliningrad), the Arms Museum in Tula, the Tretyakov Gallery (Moscow), the Russian Museum (St Petersburg)</li> </ul>



For more information please read [Annual report of SCF](#).

**FINANCING OF CHARITABLE AND SOCIAL PROGRAMMES**

The Corporation uses a broad range of tools for implementing social programmes, providing financial (grants, targeted donations, fund-raising), material (goods, services) and non-financial (volunteering, pro bono provision of resources) support to stakeholders, which ensures the maximum social effect with the optimal amount of investment.

On average, Sistema allocated 0.2% of the Group's annual consolidated revenue for financing social programmes and projects via mechanisms of corporate charity in the last five years; out of this amount, about RUB 250m is annually donated by Sistema Group companies to the corporate charity.

**THE TOTAL AMOUNT OF DIRECT SOCIAL INVESTMENTS OF THE CORPORATION IN 2014-2018 EXCEEDED**

**RUB6** bn,

**WHICH EQUALS ABOUT 0.2% OF ITS AGGREGATE CONSOLIDATED REVENUE FOR THE PERIOD<sup>1</sup>**

**IN 2018, SCF RECEIVED**

**27%** OF SISTEMA GROUP'S CHARITABLE DONATIONS AND

**47%** OF FINANCING ALLOCATED FOR CORPORATE PROGRAMMES

<sup>1</sup> Direct investments do not include indirect expenses (cost of corporate volunteers' labour, goods donated by the Group's companies and services provided at charitable events), created added value, or funds and material resources raised/received from clients and partners.  
<sup>2</sup> Net of SCF's operating expenses.  
<sup>3</sup> Net of contributions to SCF.

**DIRECT SOCIAL INVESTMENTS OF THE CORPORATION, RUB M**

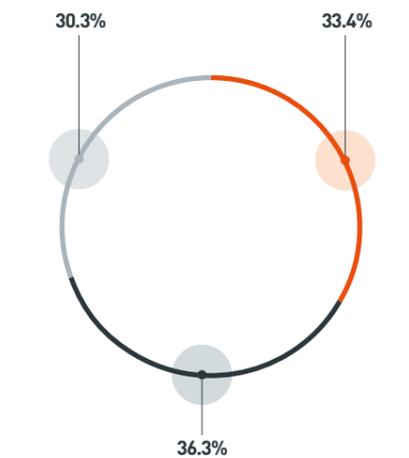
Indicator	2014	2015	2016	2017	2018
Total amount of Sistema Group's social investments	1,350	1,521	1,454	978.7	791.0
Programmes of Sistema Charitable Foundation <sup>2</sup>	340.7	542.7	554.3	337.5	219.7
Programmes of the Group's companies <sup>3</sup>	574.7	978.3	899.4	641.1	571.3

Financing of social programmes, including Sistema Group companies' contributions to the corporate charity and operating expenses of SCF, reached almost RUB 4bn in the last three years. The average share of Sistema's and its portfolio companies' contributions to the corporate charity in the same period was approx. 20% of the consolidated charity budget, while allocations for corporate programmes equalled about half of the Group's social investments.

GRI 203-1

In 2018, Sistema and its portfolio companies allocated over RUB 571m for social and charitable purposes, and another 219.7m was provided for financing of programmes via the corporate charity, not including the Group's contributions to SCF that exceeded RUB 290m and the Foundation's operating expenses. This amount does not include personal donations of the Corporation's employees for corporate charitable and volunteer projects.

**FINANCING STRUCTURE OF SISTEMA CHARITABLE FOUNDATION'S SOCIAL PROGRAMMES**

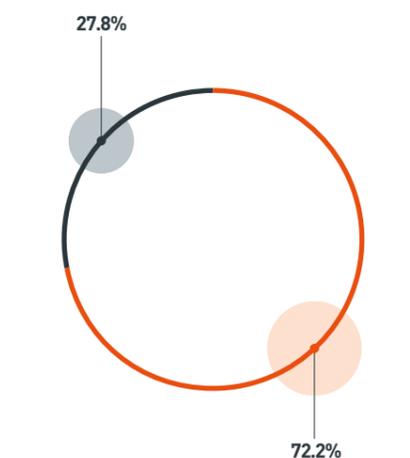


Lift to the Future
Social Environmental and Volunteering
Culture and Art

In the reporting period, contributions of the Group's companies to the corporate charity grew by 10.5% year-on-year, simultaneously with the increase of consolidated revenue, while SCF's operating expenses fell by 23% compared to 2017, from 0.05% to 0.03% of the Group's SG&A expenses thanks to optimisation of its work, which is in line with the Corporation's general strategy towards improved financial discipline.

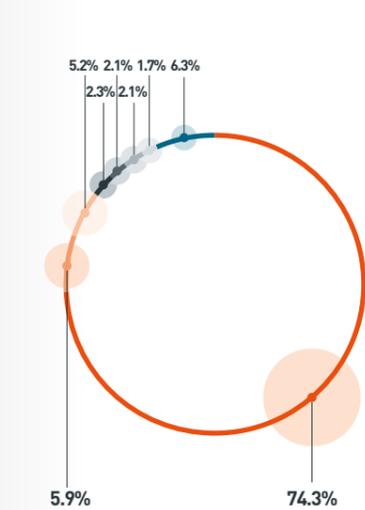
The share of the Foundation's operating expenses has been falling in the last three years and is on average less than 5% of the Group's allocations for charity.

**FINANCING OF SOCIAL AND CHARITABLE ACTIVITIES AT SISTEMA GROUP IN 2018**



Portfolio companies' own project
Programmes of SCF

**COMPANIES' CONTRIBUTION TO THE GROUP'S CONSOLIDATED CHARITABLE BUDGET**



MTS
Segezha Group
RTI
Sistema
MTS Bank
Steppe AgroHolding
BPGC
Other

**RUB270+** m

**TOTAL FINANCING OF SISTEMA CHARITABLE FOUNDATION IN 2018**

**~RUB665.5** m

**WAS TRANSFERRED BY SCF TO OTHER CHARITABLE FUNDS AND NON-PROFITS IN THREE YEARS**

<sup>1</sup> Donations by employees of the Group's companies and third parties collected as part of Detsky Mir's programmes Participate and Operation Toys. These donations are not included in the amount of the Corporation's social investments.

**INCREASE IN ANNUAL CHARITY SPENDING, %**

49.9	52.7	189.4	278.3	343.3
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The biggest contributions to financing of the Group's social projects in 2018 (over 85% of the total amount) came from MTS, Segezha Group and RTI Group, followed by Sistema, MTS Bank and Steppe AgroHolding, which accounted for approx. 2% each.

The biggest increase in social investments compared to 2017 was reported by MTS Bank, Business Nedvizhimos, BPGC, Medsi and Segezha Group.

**~RUB565** m

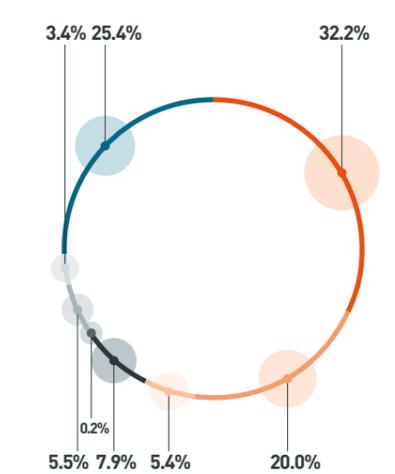
**WAS CONTRIBUTED BY THE GROUP'S COMPANIES IN 2016-2018**

**RUB214+** m

**DONATIONS COLLECTED IN 2018<sup>1</sup>**

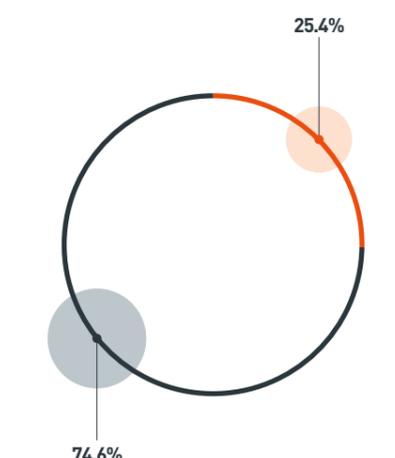
**STRUCTURE OF SPENDING ON CHARITABLE AND SOCIAL PROGRAMMES AT THE GROUP'S COMPANIES IN 2018**

**1. AREAS OF INVESTMENT**



Contributions to SCF
Contributions to third-party charity
Sports and healthy living
Culture and art
Religious organisations
CSR programmes and projects
Social support to children and veterans
Targeted aide to employees <sup>6</sup> their families and retirees of the Group's companies

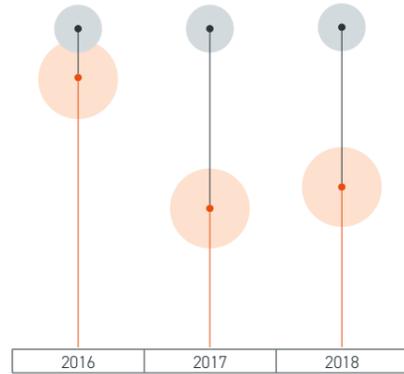
**2. TYPES OF PROGRAMMES AND PROJECTS, % OF THE GROUP'S TOTAL CHARITABLE CONTRIBUTIONS**



In the interests of employees and their families
In the interests of external stakeholders

**SCF'S DONATIONS TO FUNDS AND OTHER NON-PROFITS<sup>1</sup>, RUB K**

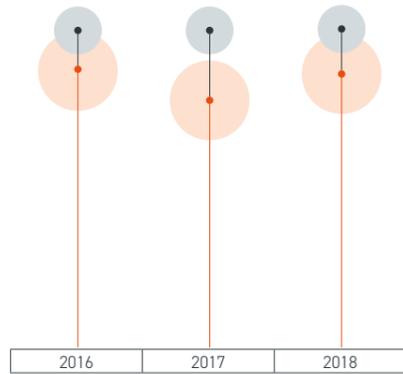
372,179	174,417	<b>118,929</b>
14.4%	85.6%	53.0%
	47.0%	<b>46.1%</b>
		<b>53.9%</b>



Donations to funds
Donations to other non-profit

**GRANTS PROVIDED BY SISTEMA CHARITABLE FOUNDATION<sup>2</sup>, RUB MN**

14,979	29,436	<b>24,521</b>
13.0%	87.0%	22.5%
	77.5%	<b>14.6%</b>
		<b>85.4%</b>



Grants to individuals
Grants to legal entities

**IN THE LAST THREE YEARS, THE ANNUAL AMOUNT OF GRANTS GIVEN BY SCF TO INDIVIDUALS AND LEGAL ENTITIES GREW BY MORE THAN 50% AND EXCEEDED IN 2018**

**RUB24** bn

**A TOTAL OF 222** grants **FOR THE AGGREGATE AMOUNT OF ALMOST**

**RUB70** m

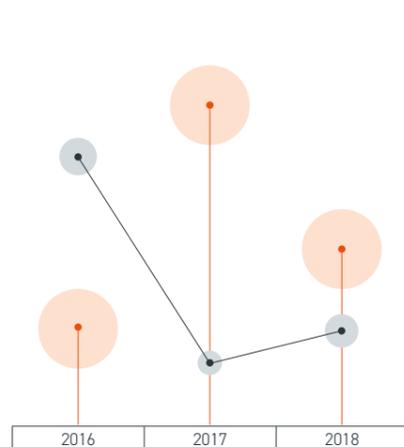
**WERE PROVIDED IN THE LAST THREE YEARS; OVER 35% OF THEM WERE GIVEN OUT IN 2018**

Sistema carries out its social programmes in partnership with interested parties and helps charitable and non-profit organisations that are in sync with its strategic goals. They received over 40% of SCF's programme budget in 2018.

In the reporting year, the Corporation continued the successful practice of social investing in form of grant financing.

**GRANTS FOR INDIVIDUALS<sup>2</sup>**

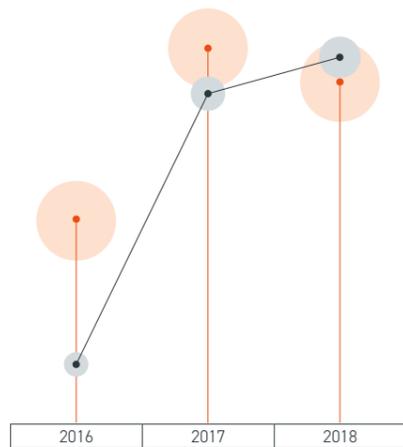
88	1,950	17	6,623	<b>26</b>	<b>3,585</b>
----	-------	----	-------	-----------	--------------



Recipients, pers.
Amount, RUB K

**GRANTS FOR LEGAL ENTITIES<sup>2</sup>**

7	13,029	40	22,813	<b>44</b>	<b>20,936</b>
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Recipients, legal entities
Amount, RUB K

<sup>1</sup> Does not include SCF's donations to the Lift to the Future  
<sup>2</sup> Incl. grants paid by SCF to the Lift to the Future

**GRI 102-43 SOCIAL AND ECONOMIC PARTNERSHIP WITH REGIONS**

The Corporation consistently develops relations with Russian regions, on the foundation of mutually beneficial social and economic partnership. The existing agreements between Sistema and its portfolio companies and Russian regions seek to attract investment, create favourable economic and social conditions, digitalise infrastructure, upgrade enterprises, develop high-tech production and implement socially significant projects in the key geographies of the Group's operations.

Expanding their presence in local markets and increasing business efficiency, Sistema Group companies increase tax payments to regional budgets and help to preserve existing jobs and create new ones. The Corporation's approach to building mutually beneficial relations with Russian regions, for some of which Sistema is an anchor investor, rules out financing of political activities and obtaining competitive advantages at the expense of other market players, while allowing for a significant change of the social environment in the regions of the Corporation's operations. The agreements define priority interests of the parties and ways for achieving common goals using existing mechanisms of government support for businesses, such as special economic zones and priority development territories, creation of industrial and research and production clusters, and getting the Corporation's investment projects included in the list of the region's priority projects.

In 2018, in order to expand strategic cooperation with Russian regions, the company worked to prepare cooperation agreements with the Omsk, Krasnoyarsk and Stavropol regions, and established regular interaction with the authorities of a new region that is important for Sistema – Samara.

**KEY AGREEMENTS WITH RUSSIAN REGIONS<sup>1</sup>**

Group companies	Regions
	Moscow city administration; Republic of Karelia; Kostroma, Novosibirsk, Samara, Yaroslavl, Krasnodar and Primorye regions
	Republic of Altay
	Republics of Adygeya, Dagestan, Ingushetia, Karachay-Cherkessia, Komi, Tatarstan; Kamchatka, Krasnoyarsk, Primorye, Voronezh, Novosibirsk, Rostov and Ryazan regions; Tobolsk, city administrations: Kostroma, Nizhny Novgorod, Orenburg, Polyarnye Zori, St Petersburg
	Republic of Karelia; Sakhalin, Kirov, Kostroma and Rostov regions
	Stavropol and Rostov regions
	Bashkortostan's Ministry of Education
	Republic of Ingushetia; Novosibirsk and Samara regions; city of Kaluga
	St Petersburg city administration

**SISTEMA'S AGREEMENTS WITH REGIONS IN 2018**

- ▶ **The agreement with the Primorye region** seeks to carry out joint initiatives and projects in such promising areas of cooperation as the timber industry, trade, information technology, telecommunications, finance and healthcare.
- ▶ **The agreement with the Yaroslavl region** envisages cooperation in the development of space and communication technologies, support to engineering companies and education programmes aimed at developing the space industry in the region; expansion of the regional chain of children's goods stores and a range of banking services for legal entities and individual entrepreneurs; implementation of hotel management projects.
- ▶ **The agreement with the Novosibirsk region** envisages cooperation in such areas as construction, information technology, microelectronics, healthcare, finance, trade and hospitality, as well as implementation of high-tech projects, including launch of life support safety management information systems for different categories facilities, and information security monitoring systems; establishment of a dispatcher centre ensuring transportation safety and control, and modernisation of the regional navigation and information centre.

**4**  
**NEW COOPERATION AGREEMENTS WITH RUSSIAN REGIONS WERE SIGNED BY SISTEMA IN 2018**

**15+**  
**AGREEMENTS WERE SIGNED BY THE GROUP'S COMPANIES IN 2018**

<sup>1</sup> Effective as of the end of 2018



### SOME OF THE AGREEMENTS WITH REGIONS SIGNED BY THE GROUP'S COMPANIES IN 2018:



**The agreement between Segezha Group and the Republic of Karelia** builds on the framework agreement signed between the region and the Corporation in 2014 and identifies focus areas for developing the timber industry, the modernisation of which is envisaged by the Concept of the Region's Social and Economic Development till 2022. The Group is upgrading the Segezha PPM, which is the largest local employer, increasing its sack paper producing capacity, and is building a new sawmill in Segezha. In turn, the regional authorities assist the company with obtaining raw materials for the existing and planned production facilities based on economically justified allowable cut. An important condition of cooperation is efficient use of timber resources, including implementation of an intensive model of forest usage and reproduction. In addition, the republic's government and Segezha Group plan to create a system for monitoring trade in round timber and finished products using the latest digital technologies of GIS-Les.



**The main goals of the agreement between Segezha Group and the Sakhalin region's government** are development of wooden houses construction in the Far East and increase of exports of high added-value products from the Sakhalin region. The parties intend to carry out a joint investment project to start manufacturing of laminated wood structures, which are successfully used around the world for prefabricated houses and also hotel and social infrastructure.



**The memorandum of cooperation between Steppe AgroHolding and the Rostov region's government** envisages construction of the region's biggest dairy farm for 7,000 cows. The farm will use the most advanced technologies to produce raw milk according to European standards, including automated real-time livestock monitoring, which allows reducing the disease rate and preserving cattle, which, in turn, increases the productivity of each animal and helps to control the quality of end products. The latest technologies that will be implemented at the farm include genetic and reproduction management, production of quality fodder and creation of unique living conditions for the animals, such as free-stall housing and regulated microclimate. The new farm in the Rostov region will be put into operation in stages and will reach the design capacity in 2022. Its average milk output is projected at 11,000 l per cow per year, which is close to the world's best practices. Total investment in the project will be about RUB 2bn. The farm will create more than 150 new jobs in the region.



**Medsi Group and the St Petersburg city administration** signed an agreement of intent related to projects that are aimed at improving healthcare and preserving human capital. Notably, Medsi Group will equip its clinic in St Petersburg with cutting-edge high-tech equipment in order to expand the range of offered services and introduce the latest achievements in healthcare. In addition, it plans to open new centres of excellence and expand its chain in the city by opening new clinics with expanded diagnostic and treatment capabilities.

### REVIVAL OF THE LIGHT INDUSTRY IN VOLOGDA



With support from the Russian Ministry of Industry and Trade and the Vologda region's government, Sistema is reviving the region's oldest light-industry enterprise, the Vologda Textile Mill, which was founded in 1936. The Corporation acquired the company, which had stood idle for 18 months, in the first half of 2018, with view to turn it into a leading textile manufacturer in Russia. Revival of Vologda Textile is an example of efficient cooperation between the Corporation and the federal and regional authorities, one of the purposes of which is to ensure import substitution.

The enterprise that used to be a flagship of the light industry, and managed to avoid bankruptcy during the perestroika years and after the Soviet Union's breakup. In 2010-2012, the region invested in its modernisation, but operations were closed down in 2014 due to inefficient management and high debt. The outstanding wages, utility bills and loans kept growing, while the infrastructure was decaying. The mill faced liquidation, but avoided it thanks to joint efforts on the part of the authorities, the trade union and a consortium of Sistema-led investors.

The Corporation has an extensive experience of working with distressed assets and is now implementing a comprehensive programme for refocusing Vologda Textile on manufacturing of high-tech fabrics, including those for workwear production.

In June 2018, as a first step in this direction, the company opened a new workwear sewing shop on the basis of industrial cooperation with Russia's biggest workwear manufacturer, Vostok Service Group, whose products are bought by many companies operating in the region, e.g. Severstal, FosAgro, machine-building and timber enterprises. At present, fabric for workwear production is mostly imported, but growing requirements to production safety encourages demand for quality domestic products.

The company is carrying out a programme for capacity increase. At the end of 2018, it acquired state-of-the-art dyeing machines, which will make it possible to achieve the best quality of dyeing different fabrics, increase output by 120,000 linear metres and expand the product mix. Following the upgrade and expansion of the mill, training of necessary specialists was organised at the region's vocational schools.

All the efforts enabled Vologda Textile to restore almost all of its production shops by the beginning of 2019, reach the design capacity in fabric production and become a visible player in the industry. In the reporting period, Vologda Textile Mill took part in several specialised exhibitions, including the 4th international specialised exhibition Imports Substitution and the Tekstilgrpom fair – a national event for the textile and light industries. The company presented a broad range of samples at the fair, and its representatives attended an international forum devoted to innovations in the textile and light industries.



“

*The country's oldest and one of the most respected textile enterprises continues developing and holds its rightful place in the regional economy. Today, it produces over 2.5m linear metres of popular fabrics a year. It employs 270 people. I am positive that commissioning of the new dyeing shop will give start to the development of new production, new ideas and new segments. Many of products that are currently bought from other regions and countries can be produced here. We would like to create a big industrial cluster on the basis of the enterprise, combining marketing, sales, procurement of raw materials, manufacturing of spare parts, and so on.*

**OLEG KUVSHINNIKOV**

Governor of the Vologda region

**RUB40+ m**

**WAS INVESTED IN ACQUISITION OF NEW HIGH-TECH DYEING EQUIPMENT IN 2018**

## REVIVAL OF THE LIGHT INDUSTRY IN VOLOGDA

### Vologda Mill today

Vologda Textile Mill is a modern full-cycle enterprise that manufactures high-tech fabrics and products made of them. The production process covers the entire technological chain from yarn dyeing and weaving to state-of-the-art fabric finishing. An important area of the mill's operations is development and manufacturing of innovative fabrics. State-of-the-art fabrics are developed at the mill's own R&D centre in cooperation with leading Russian and foreign research institutes, while its advanced technological base, including weaving and finishing equipment from the world's best producers, allows it to significantly increase the output of synthetic and natural technical textiles within a short period of time.

Establishment of a major textile cluster on the basis of the mill will support its further efficient development. The Vologda mill with its solid infrastructure, research and organisational resources can become the centre of comprehensive development of the region's light industry.



“

*We invest in restoration of this facility in order to create Russia's most advanced and state-of-the-art enterprise. Sistema wants to turn Vologda Textile Mill into a leader of the Russian textile industry, with prominent competences in manufacturing of technical fabrics and workwear. For the purpose of further development, we plan to closely cooperate with domestic and international industry players in order to establish joint ventures, localise manufacturing and transfer technologies.*

### ARTYOM SIRAZUTDINOV

Managing Partner of Sistema PJSFC

## SOCIAL PARTNERSHIP WITH THE REPUBLIC OF ALTAI



Sistema Charitable Foundation uses a systemic approach to social problems of various Russian regions, acting in partnership with the Group's companies, authorities and local communities.

In 2018, the programme that is carried out as part of the strategic partnership between Sistema and the government of the Republic of Altai brought together the Corporation's cultural and social initiatives. An unprecedented number of visitors received free entrance to the National Anokhin Museum: 5,000 residents and guests of Gorno-Altaysk were able to see the museum's exposition and take part in the entertainment programme prepared by the museum and a creative volunteer team of MTS. A Cultural Weekend event was organised at schools of the villages of Shyrgaita, Yabogan, Chendek and Multa, and at the Belovodye children's camp.

Together with partners, the Foundation provided aide to social, educational and healthcare organisations and to children in three remote areas, whose residents took part in cultural events: theatre performances, interactive shows, master classes and excursions around a makeshift exhibition of art reproductions from the Russian Museum, which included paintings by Grigory Choros-Gurkin – one of Altai's best known painters – and his famous teachers, Ivan Shishkin and Alexander Kiselev.

Detsky Mir and Sistema Charitable Foundation opened 4 playrooms at children's hospitals and rehabilitation centres, including the Republican Rehabilitation Centre for disabled children and teenagers. Each room received new furniture, dolls, prams, building sets, toy cars and learning games.



“

*The Cultural Weekend project at the museum is about supporting culture and art, using new information and telecommunication technologies for popularising our historic legacy. It is a wonderful gift for residents of Gorno-Altaysk and visitors of our city.*

### OLGA ANTARADONOVA

Culture Minister of the Republic of Altai

In addition, Detsky Mir handed over to the Altai Ministry for Labour, Social Development and Employment RUB 1.3m worth of children's clothes and stationery for poor families, and together with SCF carried out a social programme aimed at promoting cultural and sports activities among children and making education more affordable. The Republican Children's Library and the Ulagan Central District Library received new children's books, the Gorno-Altaysk children's art school got easels for young artists and 7 district art schools were given musical instruments. The Foundation also gave outdoor building sets, street chess and table tennis sets to three children's recreation camps. Five village schools received sets for organising sport competitions and a puppet show.

In the last three years, two big charitable festivals were organised in the Republic of Altai, which reached out to a total of 15,000 people. The aggregate cost of donations reached RUB 22m: 17 playrooms were opened at 10 hospitals, RUB 11.5m worth of humanitarian aid was provided to underprivileged families from all municipalities. The National Chevalkov Library received new books; grants were awarded to environmental projects.

**RUB700 K**  
SOCIAL INVESTMENT  
IN THE PROJECT

# Economic results and effect from investment programmes

GRI 103-2

Sistema has a substantial influence on the development of many industries and the Russian economy in general. The Corporation's economic results are closely linked to its ability to timely and fully discharge its obligations to stakeholders.



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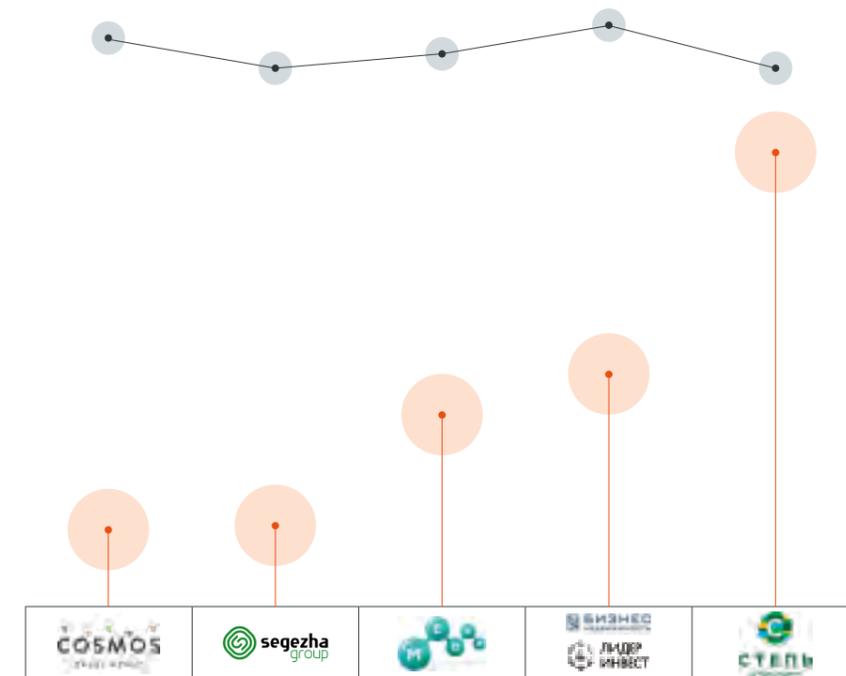
*Today, the Corporation is a visible player in almost all strategically important sectors that are not related to hydrocarbon production, it plays an important part in developing the non-commodity segment of the Russian economy, including development and production of high-tech and science-driven products, both for imports substitution and exports, provision of services and sales of consumer goods. In the last three years, Sistema Group increased its contribution to the country's social and economic development by 5%, including investments in fixed assets, infrastructure and tax payments. We are actively investing in industries where our portfolio companies operate and see the high payoff from these investments: many of our assets grow at a rate that is above the economy's or industry's average.*

### VLADIMIR TRAVKOV

Vice President for Finance and Investment, Sistema PJSFC

## LEADING ASSETS IN TERMS OF REVENUE GROWTH IN 2018

22.8%	▲2.9%	32.4%	▼3.4%	52.1%	▼0.1%	66.8%	▲6%	136.6%	▼3.4%
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GDP growth, 2017-2018<sup>1</sup>  
Revenue in 2018

In 2018, Sistema's consolidated revenue and profit margins grew thanks to the strong performance of its public assets and active growth of the agricultural, real estate development, healthcare, timber and hotel businesses, which are the drivers of their sectors, demonstrating growth rates high above the GDP growth in their respective segments<sup>2</sup>.

<sup>1</sup> Index of the GDP physical volume and gross added value broken down by economic sectors (according to Rosstat).  
<sup>2</sup> Taking into account new IFRS. For detailed information on the company's financial performance, see the [Annual Report](#), pages 18-21.

GRI 201-1 GENERATED AND DISTRIBUTED DIRECT ECONOMIC VALUE<sup>1</sup>, RUB BN

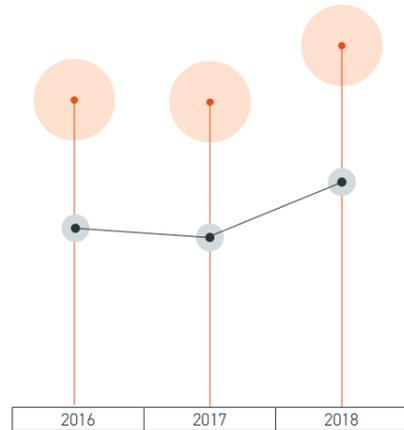
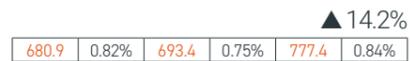
Indicator	2016	2017	2018
<b>Created value, including</b>	<b>724.77</b>	<b>717.90</b>	<b>787.46</b>
Consolidated revenue	697.70	704.55	777.40
Financial and other revenues	27.06	13.35	10.05
<b>Distributed value, including</b>	<b>715.61</b>	<b>784.44</b>	<b>825.76</b>
Operating and other expenses	623.44	612.71	644.03
including wages, social and other payments to employees <sup>2</sup>	132.40	131.87	137.64
Taxes <sup>3</sup>	27.15	17.35	39.22
Investments in communities <sup>4</sup>	1.52	1.31	1.12
Financial expenses	56.25	48.98	68.02
Other expenses	8.77	105.39	74.49
Accrued dividends to shareholders	9.87	14.06	1.05
<b>Retained value</b>	<b>-0.71</b>	<b>-80.59</b>	<b>-39.35</b>

**0.77%**  
**AVERAGE SHARE OF SISTEMA'S CONSOLIDATED REVENUE IN RUSSIA'S GDP IN 2016-2018**

**1.85%**  
**AVERAGE SHARE OF THE CORPORATION IN THE GROSS INCOME OF THE RUSSIAN ECONOMY IN 3 YEARS**

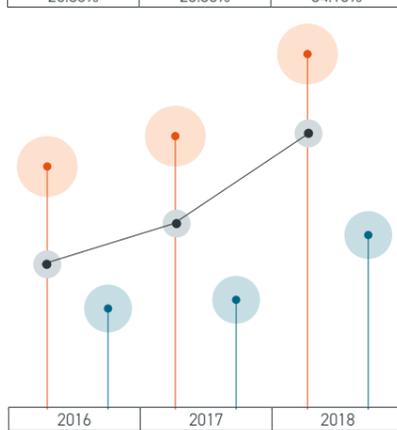
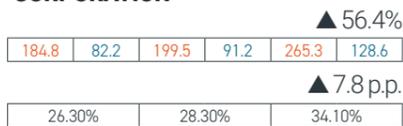
Sistema is one of Russia's biggest taxpayers. The amount of actual tax payments to the budgets of all levels and off-budget social funds in 2018 reached RUB 108.8bn<sup>5</sup>, with allocations to pension, healthcare and social insurance funds accounting for almost 23% of this amount.

**SHARE OF THE CORPORATION'S REVENUE IN RUSSIA'S GDP**



Share of the Corporation's revenue in Russia's GDP  
 Share in Russia's gross domestic product

**OPERATIONAL INCOME, OIBDA AND PROFITABILITY OF THE CORPORATION**



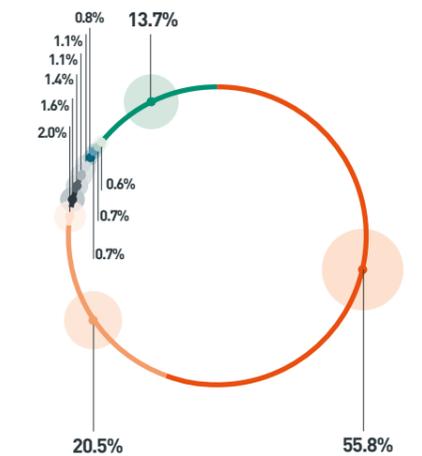
OIBDA  
 Operational income  
 Profitability of the Corporation

<sup>1</sup> The estimates are based on IFRS reporting on the basis of accrual accounting.  
<sup>2</sup> Employee remuneration expenses (wages, bonuses and social contributions) included in production cost; selling, general and administrative expenses.  
<sup>3</sup> Include expenses for income tax and other irrecoverable taxes.  
<sup>4</sup> Not an IFRS indicator: includes expenses for social and charity programmes financed through Sistema Charitable Foundation, the administrative expenses of Sistema Charitable Foundation and own programmes of portfolio companies financed from their budgets (excluding contributions to Sistema Charitable Foundation).  
<sup>5</sup> Including VAT, income tax and other tax payments.

**SISTEMA GROUP'S PAYMENTS TO RUSSIA'S BUDGET SYSTEM, RUB BN**

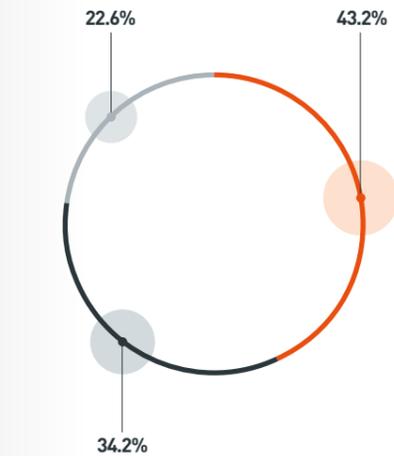
Indicator	2016	2017	2018
<b>Payments to the budgets of all levels and to off-budget funds</b>	<b>98.1</b>	<b>108.3</b>	<b>108.8</b>
Tax payments to the federal and regional budgets	74.2	85.5	84.2
Allocations to funds	23.9	22.8	24.7

**STRUCTURE OF TAX PAYMENTS IN 2018 BY REGION**



Federal budget
Moscow
Republic of Bashkortostan
Moscow region
Krasnodar region
Nizhny Novgorod region
St Petersburg
Republic of Karelia
Krasnoyarsk region
Rostov region
Sverdlovsk region
Other

**STRUCTURE OF SISTEMA'S PAYMENTS TO THE RUSSIAN BUDGET IN 2018**



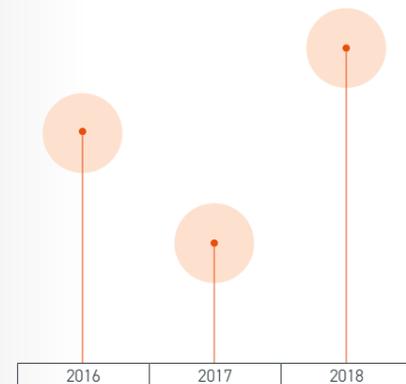
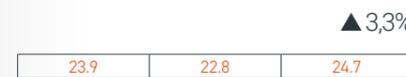
Federal budget
Regional and local budgets
Contributions to funds

**STRUCTURE OF PAYMENTS TO RUSSIA'S OFF-BUDGET FUNDS IN 2018**



Russian pension fund
Obligatory medical insurance fund
Social security fund

**SISTEMA'S MEDICAL, SOCIAL AND PENSION SUPPORT PAYMENTS, RUB BN**



**REGIONS ACCOUNTED FOR**

**44%+**

**OF ALL TAX PAYMENTS OF THE CORPORATION IN 2018 OR**

**34%+**

**OF ALL PAYMENTS TO THE RUSSIAN BUDGET**

**RUB300+ bn**

**AMOUNT OF SISTEMA'S PAYMENTS TO THE BUDGET AND OFF-BUDGET FUNDS OVER THE LAST 3 YEARS, OF WHICH**

**RUB70+ bn**

**WAS ALLOCATED FOR THE MEDICAL, SOCIAL AND PENSION SUPPORT OF THE POPULATION**

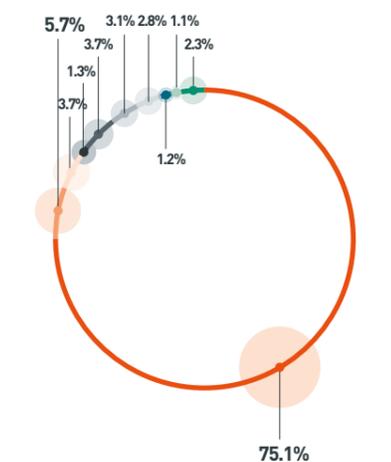
Sistema strictly abides by the Russian tax legislation. At the same time, the Group's companies try to make use of all available tax benefits and preferential regimes for developing their businesses. This is especially relevant for companies operating in Russian regions (e.g., in the Republics of Altay, Karelia and Tatarstan, the Moscow, Volgograd and Yaroslavl regions, and Novosibirsk) and in sectors that are of strategic importance for the country, including healthcare, pharma, etc. In the reporting period, total savings from tax benefits that can be applied upon meeting certain criteria on the national or regional levels exceeded RUB 465m<sup>1</sup>. Most of the benefits are related to the government's support for innovative activities and investment (investments in industrial facilities, logistical and hotel infrastructure and programmes in the social sphere). Some of the Corporation's assets have a status of industrial complexes (Binnopharm, Mikron), or are residents of industrial parks or special economic zones, including Bekasovo in the Moscow region, Innopolis in Kazan, etc.

~RUB109 bn

OF TAXES WAS PAID TO  
THE RUSSIAN BUDGET IN 2018

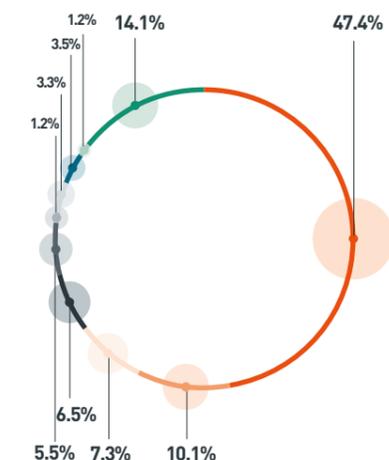
### STRUCTURE OF TAX PAYMENTS IN 2018 BY PORTFOLIO COMPANY

SHARE OF THE GROUP'S COMPANIES  
IN TAX PAYMENTS TO THE FEDERAL  
AND REGIONAL BUDGETS



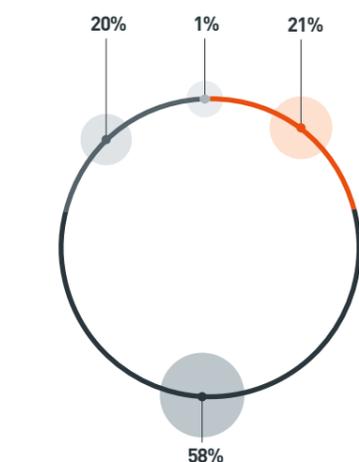
MTS
Detsky Mir
RTI
Medsi
BPGC

IN PAYMENTS TO SOCIAL FUNDS



Real estate
MTS Bank
Sistema
Cosmos Group
Other

GOVERNMENT SUPPORT IN 2018 BY  
TYPE OF BENEFITS, %



Reduced income tax rate
Property tax exemption
Reduced social security contributions
Reduced land/lease tax rates

TOTAL EFFECT FROM TAX  
BENEFITS WAS ABOUT

0.5%

OF THE GROUP'S TAX  
PAYMENTS IN 2018

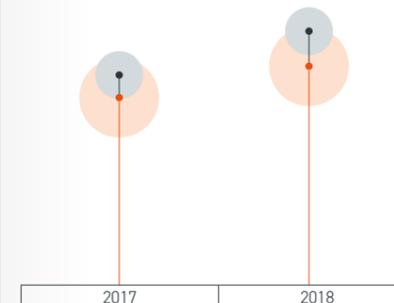
<sup>1</sup> Net of benefits provided to any taxpayer involved in certain types of activities (healthcare, agriculture, etc.), and VAT exemption that is not provided on a declaratory basis, such as: design and development work, banking, licensed activities of a professional securities market player, services of a real estate developer.

### CONTRIBUTION TO THE DEVELOPMENT OF RUSSIA'S NON-COMMODITY EXPORTS

Increase of non-commodity exports is a key focus of Russia's economic strategy. Operations of Sistema's timber-processing and agricultural assets, which have become visible players in international markets, contribute to the increase of both the Group's export revenue and exports of Russian competitive products. In 2018, Segezha Group and Steppe AgroHolding exported almost USD 870m worth of products.

In the reporting period, **Segezha Group** increased exports by 25% to RUB 42.1bn, out of which the EEU countries (Armenia, Belarus, Kazakhstan and Kyrgyzstan) accounted for about 3%.

32.7	0.9	40.8	1.3
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Exports (without EEU), RUB bn
Exports to EEU (Armenia, Belarus, Kazakhstan, Kyrgyzstan), RUB bn

Over 70% of the company's finished products is supplied to more than 100 countries; it exports:

- ▷ 99% of its sawn timber output to more than 30 countries, mostly to China, Europe and MENA.
- ▷ over 90% of sack paper to more than 60 countries, mostly to South-East Asia, Africa, and Central and South America.

Production of plywood, laminated beams and fuel pellets is also mostly export-oriented.

**SEGEZHA GROUP WAS RUSSIA'S LEADING EXPORTER OF ROUGH SOFTWOOD SAWN TIMBER IN 2018.**

**Steppe AgroHolding** significantly expanded its export operations in the season of 2018/2019 as part of development of agricultural trading. In the previous season, the company exported 457,000 t of crops, including 60,000 t of third-party produce; the forecast for the next season is about 2m t, while the share of third-party crops is projected to reach approx. 60%. Wheat accounts for the bulk of Steppe AgroHolding's exports, and wheat supply to foreign markets was among the drivers of Russian exports growth in 2018. The company also plans to export barley, peas, chickpea, and flax and hopes to become one of Russia's top 5 grain exporters in 2020. Steppe's major customers outside Russia are Turkey, countries of the Middle East, North Africa, Europe and Asia. It also exports niche crops to India, Bangladesh, Malaysia and Pakistan.

Based on the year's results, Steppe AgroHolding, whose exports surged 4-fold, for the first time made it to the top 100 of the ranking of Russia's 200 biggest exporters, accounting for almost 1.7% of total exports of companies included in the ranking.

Export sales and solutions for new markets, including for the Internet of Things, were among drivers of **Mikron's** revenue growth alongside RFID projects. The company's revenue exceeded RUB 10bn in the reporting period. Mikron produced sample chips for auto electronics and got its quality assurance system certified according to the IATF international standard, which allows the company to enter foreign markets in this promising segment.

~3%

**SHARE OF STEPPE AGROHOLDING'S IN RUSSIA'S GRAIN EXPORTS IN 2018**

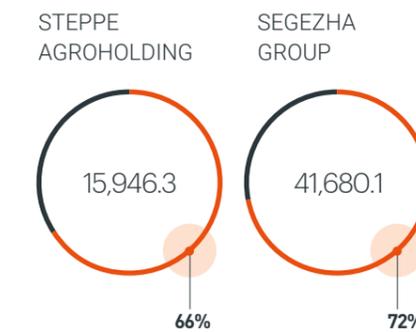
STEPPE AGROHOLDING ENTERED

TOP100

RUSSIA'S BIGGEST EXPORTERS  
AT THE END OF 2018

**MTS** and **Detsky Mir** also operate abroad: their revenue from outside Russia accounts for 2.3% and 6.2% of their total revenue, respectively. Sistema plans to further develop the export potential of its high-tech assets, and increase exports of competitive agricultural and added-value timber products.

SHARE OF EXPORTS IN TOTAL  
REVENUE



~8%

SHARE OF EXPORTS IN SISTEMA'S  
CONSOLIDATED REVENUE IN 2018,  
OR RUB60+ BN

+55%

GROWTH OF EXPORTS OF SISTEMA  
GROUP'S COMPANIES IN 2018,  
COMPARED TO RUSSIA'S AVERAGE  
OF 19.5%.

0.37%

SHARE OF SISTEMA'S  
AGRICULTURAL AND TIMBER-  
PROCESSING ASSETS IN RUSSIA'S  
TOTAL NON-COMMODITY EXPORTS  
IN 2018 IN DOLLAR TERMS<sup>2</sup>

<sup>1</sup> According to the Expert analytical centre.

<sup>2</sup> Russia's foreign trade results for 2018, according to the Russian Ministry for Economic Development.

**CONSUMER LOYALTY GROWTH**

Consumers are a crucial stakeholder, especially for companies operating in the mass market, and ensuring the high quality and safety of their goods and services and positive customer experience is an important focus of CSR efforts of Sistema Group companies, which invest in their customer relations. The result of a company's efforts to improve trust and retain customers can be assessed by its customers' loyalty levels, which are most often measured using the Net Promoter Score (NPS). As a rule, companies that are the most proactive towards their customers turn out to be the most competitive ones.

**Medsi is the leader in terms of brand recognition and patients' loyalty<sup>2</sup>**

In 2018, Medsi became the best known brand in the Moscow private healthcare market – it was recognised by 78.5% of respondents. In the reporting period, the company accounted for 8.6% of all visits to private clinics (the closest competitor's share is 3.9%), while its NPS was 37%, which is higher than the average result of clinics in Europe and the United States. The main factors that help to improve Medsi's relations with patients are its doctors' professionalism and patients' trust in them, effectiveness of treatment and quick solution of problems, price to quality ratio, affordable and easy-to-understand medical consultations, convenient working hours of clinics meeting patients' expectations.

**MTS has the best customer experience team in retail<sup>3</sup>**

Customer service experts that judged the CX WORLD AWARDS were impressed with positive changes in the NPS of MTS's retail chain and declared the operator's team the best in terms of customer experience. Use of Big Data analytics enabled MTS to reduce waiting times for customers, improve the quality of service and customers' satisfaction from acquisition of gadgets, telecom services, financial products and satellite TV. Every year, the company organises a national contest for its personnel, The Leader of Customer Service. The contest takes several months and consists of several stages, including analysis of the quality of service and sales.

This way, MTS makes its personnel involved in shaping and improving customer experience and tries to make the process as comfortable for customers as possible.



**3,000+**

**EMPLOYEES OF MTS'S RETAIL CHAIN TOOK PART IN THE LEADER OF CUSTOMER SERVICE CONTEST IN 2018**

<sup>1</sup> Company data for Q4 2018  
<sup>2</sup> Source [bizstat.ru/market\\_survey](https://www.bizstat.ru/market_survey)  
<sup>3</sup> Source [moskva.mts.ru/about/media-centr/soobshheniya-kompanii/novosti-mts-v-rossii-i-mire/2019-04-25/roznichnaya-set-mts-stal-pobeditelem-premii-cx-awards-2019-v-oblasti-klientskogo-servisa](https://moskva.mts.ru/about/media-centr/soobshheniya-kompanii/novosti-mts-v-rossii-i-mire/2019-04-25/roznichnaya-set-mts-stal-pobeditelem-premii-cx-awards-2019-v-oblasti-klientskogo-servisa)



*The focus on patients and their needs, building an efficient system of interaction, enhancing safety and service quality and creating a positive patient experience along the entire treatment route – all this is an integral part of Medsi's corporate culture. The company's patient-centred model is based on comprehensive support to patients who have entrusted us with their health at all stages of provision of medical services. Therefore, our priority goal is to build partner relations with patients, making sure that they understand and are involved in the treatment process.*

**DENIS YELTSOV**  
 Director for Patient Experience Management at Medsi Group

**In 2018, the Group's portfolio companies reported strong results in terms of customer loyalty:**

**DETSKY MIR:**  
**70%**  
 IN AN OFFLINE POLL

**51%**  
 IN AN ONLINE POLL<sup>1</sup>

**MTS RETAIL CHAIN:**  
**63%**  
 (LEVEL OF RECOMMENDATIONS FROM OUTLET VISITORS)

**MTS BANK:**  
**48%**  
 IN ALL CUSTOMER SEGMENTS

**MEDSI:**  
**40%**

**LEADER-INVEST:**  
**33%**

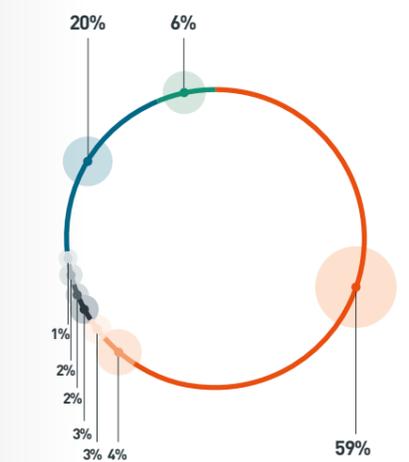
**IMPLEMENTATION OF INVESTMENT PROGRAMMES**

Sistema invested over RUB 450bn in the Russian economy in the last three years. Most of this money went towards boosting the assets' production and operating potential and modernising enterprises in various sectors, which feeds into sought-for high-quality products for both domestic and export markets, new jobs, and better standards of living in geographies where Sistema companies operate.

The Group's CAPEX grew by 18.8% vs 2017 to RUB 124bn, mostly due to the increase of MTS's investment in development of its Russian networks with a focus on better LTE coverage and Detsky Mir's investment in expansion of the retail chain in regions.

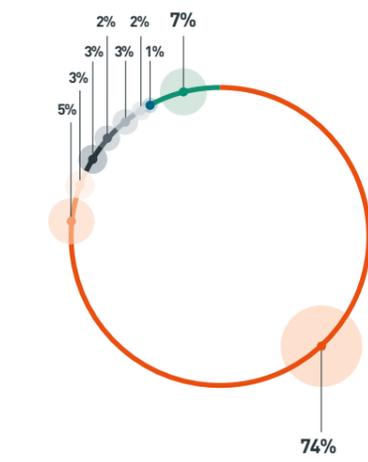
**~1%**  
**TOTAL PRIVATE INVESTMENTS IN FIXED ASSETS MADE BY SISTEMA GROUP IN 2018**

**SISTEMA GROUP'S TOTAL INVESTMENT IN STRATEGIC ECONOMIC SECTORS IN 2018, RUB BN**



Telecom and digital services	92.0
Timber industry	6.4
Electric power industry	3.8
Consumer sector	3.8
Healthcare	3.0
High technology	3.2
Agriculture	2.2
Financial services	31.2
Other	9.5

**INVESTMENT IN FIXED ASSETS BROKEN DOWN BY INDUSTRIES, RUB BN**



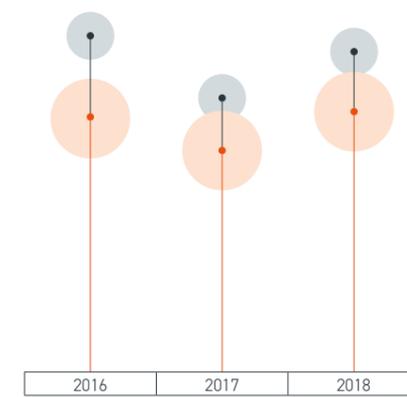
Telecom and digital services	92.0
Timber industry	6.4
Electric power industry	3.8
Consumer sector	3.8
Healthcare	3.0
High technology	3.2
Agriculture	1.9
Financial services	0.9
Other	9.0

**SISTEMA'S INVESTMENT ACTIVITY IN 2018<sup>1</sup>, %**



**SISTEMA GROUP'S INVESTMENTS, RUB BN**

161.4	130.5	155.1
122.9	38.5	104.4
26.1	124.0	31.1



Asset development programmes (CAPEX)  
 Sistema's investments in assets, including new acquisitions (M&A)

<sup>1</sup> [gks.ru/free\\_doc/doc\\_2018/rusfig/rus18.pdf](https://gks.ru/free_doc/doc_2018/rusfig/rus18.pdf)

~RUB450 bn

>78%

**TOTAL AMOUNT OF THE GROUP'S INVESTMENT IN 2016-2018**

**OF IT WENT INTO FIXED ASSETS, INCLUDING:**

RUB250+ bn

**INVESTED IN TELECOM INFRASTRUCTURE**

RUB25+ bn

**IN THE TIMBER INDUSTRY**

RUB6+ bn

**IN HEALTHCARE**

RUB20+ bn

**IN HIGH TECHNOLOGY**

RUB12+ bn

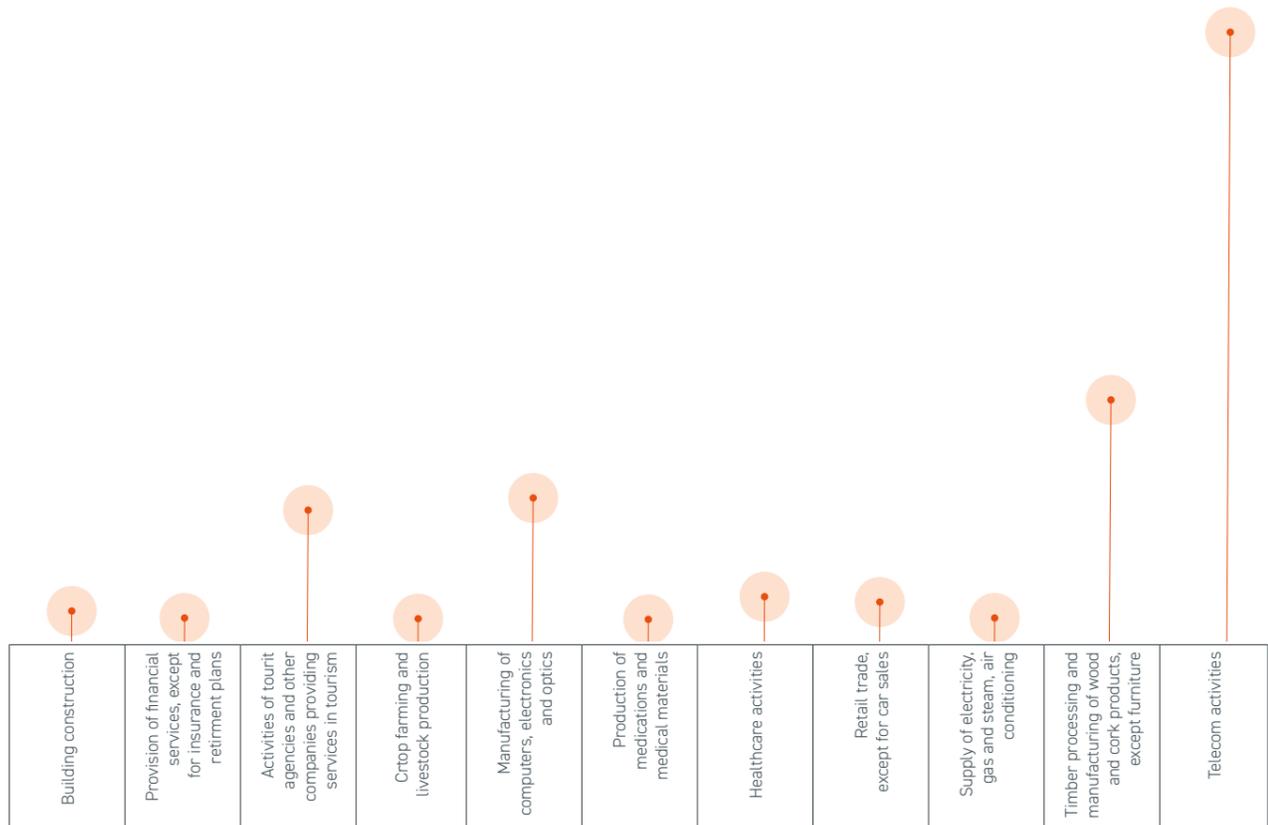
**IN POWER GRIDS**

RUB6+ bn

**IN AGRICULTURE**

**THE CORPORATION'S SHARE IN TOTAL INVESTMENT IN THE RUSSIAN ECONOMY IN 2018, BREAKDOWN BY INDUSTRY,%**

0.51	0.27	4.64	0.26	4.75	0.22	1.24	1.09	0.37	9.89	20.56
------	------	------	------	------	------	------	------	------	------	-------



**Investments of MTS** in 2018 sought to create state-of-the-art infrastructure (80% of total investment). In 16 Russian cities, the operator launched NB-IoT networks for the Internet of Things and also continued preparing for launching 5G in the country. The company expanded its data processing capacity by acquiring one of Russia's biggest data centres, LLC Avantazh, in September 2018. It also purchased two major ticket operators (Ticketland.ru and Ponominalu.ru), and Youdo.com, the biggest online service connecting customers with service providers for performing household errands and business tasks, and increased its stake in the online hypermarket Ozon<sup>1</sup>. At the end of 2018, MTS and Medsi launched the SmartMed telemedicine platform, which will be instrumental in developing digital healthcare services.



RUB90+ bn

**MTS' INVESTMENTS FOR CONSTRUCTION AND UPGRADE OF TELECOM NETWORKS IN THE COUNTRIES WHERE IT OPERATES IN 2018, OUT OF WHICH 85% WAS INVESTED IN RUSSIA**

MTS Group's capital investments accounted for 20%+ of all investments in the Russian telecom industry.



**The bulk of Segezha Group's CAPEX 2018** was used to complete the three-year modernisation programme at Segezha PPM in Karelia – construction of a multi-fuel boiler that will significantly enhance the facility's energy efficiency and environmental friendliness, and also to build the second facility at Vyatka Plywood Mill (the Kirov region), doubling the capacity for production of high-quality birch plywood to 192,000 cu m per annum. Total investments in setting up the new production facility amounted to RUB 6.7bn. Installation of innovative equipment at the mill, where 475 new jobs were created, made it possible to reduce energy production costs by 20% and emissions in the atmosphere by 30%.



Also, over RUB 0.8bn was invested in the construction of a pellet factory in Lesosibirsk with an annual capacity of 70,000 t pellets. The company plans to create a large forest chemical plant at Lesosibirsk Woodworking Plant No 1, with a design capacity of up to 500,000 t of pulp a year, which will create about 500 jobs by 2022. At its plant in Salsk (the Rostov region), the company installed a bag-making line that allows producing 25m paper sacks: industrial packaging for cement and other construction mixes and consumer packaging, i.e. paper bags that will gradually replace plastic bags in retail stores. Investments in the project totalled RUB 1.8bn in 2018; it created 90 jobs.



≈ 565

**NEW JOBS WERE CREATED IN RUSSIAN REGIONS THANKS TO MODERNISATION OF SEGEZHA GROUP'S ENTERPRISES IN 2018**

Segezha Group was responsible for almost 10% of overall investments in the Russian forest industry made in 2018.

<sup>1</sup> In March 2019, Sistema acquired 18.7% of shares in Ozon Holdings Limited from MTS for 7.9bn, and MTS fully exited the online retailer.



The most of **Medsis's investment** in the reporting year went to expand the chain and acquire equipment for clinics in Moscow and other regions. The company began construction of a flagship clinicodiagnostic centre for adults and children in Michurinsky avenue in Moscow with an area of over 28,000 sq m. It also completed the launch of a large medical centre in St Petersburg that was acquired in 2017; it now has state-of-the-art technologies for complex diagnostics and surgeries.



**Detsky Mir's investments** in 2018 sought to further expand its retail chain: the company opened 100 new stores and entered a new region – the Far East. It continued its efforts to make goods for different age groups more affordable, and launched ABC, a new retail chain selling toys for children aged 0-14, with the first store opening in Chelyabinsk in May. On top of that, the company piloted a pet goods project, opening 4 specialised pet stores under the Zozavr brand that carry products from the world's best manufacturers.



In 2018, **BPGC** invested almost RUB 4.6bn in upgrade and modernisation of outdated power grid equipment to ensure uninterrupted functioning of power grids in Bashkortostan, an increase of 4.4% from the previous year. Among other things, it put into operation a new production facility in the Novoufimsky district, which was built to supply electricity to individual houses and small and medium-sized businesses in the suburban areas near Ufa (for details, see "Sustainable development practices of portfolio companies").



**RTI Group** continued developing industrial cooperation in the space industry in 2018. The Yaroslavl Radio Factory commissioned a state-of-the-art shop for assembly of payload for future spacecraft (see "Sustainable development practices of portfolio companies"), and developed models of on-board locators and new methods for control of radar systems. As part of the project for establishment of high-tech production on the basis of OKB Planeta in Nizhny Novgorod, which started in 2016, the company completed the construction of a new building by the end of the reporting period and began installing equipment for radioelectronics assembly, thermal engineering and metal working. The new facility will have separate premises with required cleanliness levels and specialised infrastructure minimising the impact of external negative factors, including risks of equipment breakdown, and preservation of finished products and raw materials. In 2018, the group completed the technological overhaul of Mikron and NIIME, which envisaged:



- ▷ development of own assembly facility and RFID tag manufacturing;
- ▷ transition from manufacturing of outdated 100 mm plates to 150 mm;
- ▷ a pilot line for manufacturing 65 nm microchips that will make it possible to reach the global level of design and production of very large-scale integration circuits (VLSIC).



Having refitted the production facilities, Mikron became able to create a full microchip production cycle on the basis of its own 180/90 nm crystal production and pack some of its RFID products without contractors, while reduction of the 100 mm production resulted in a significantly lower work load of the infrastructure and energy savings.

~RUB4.6 bn

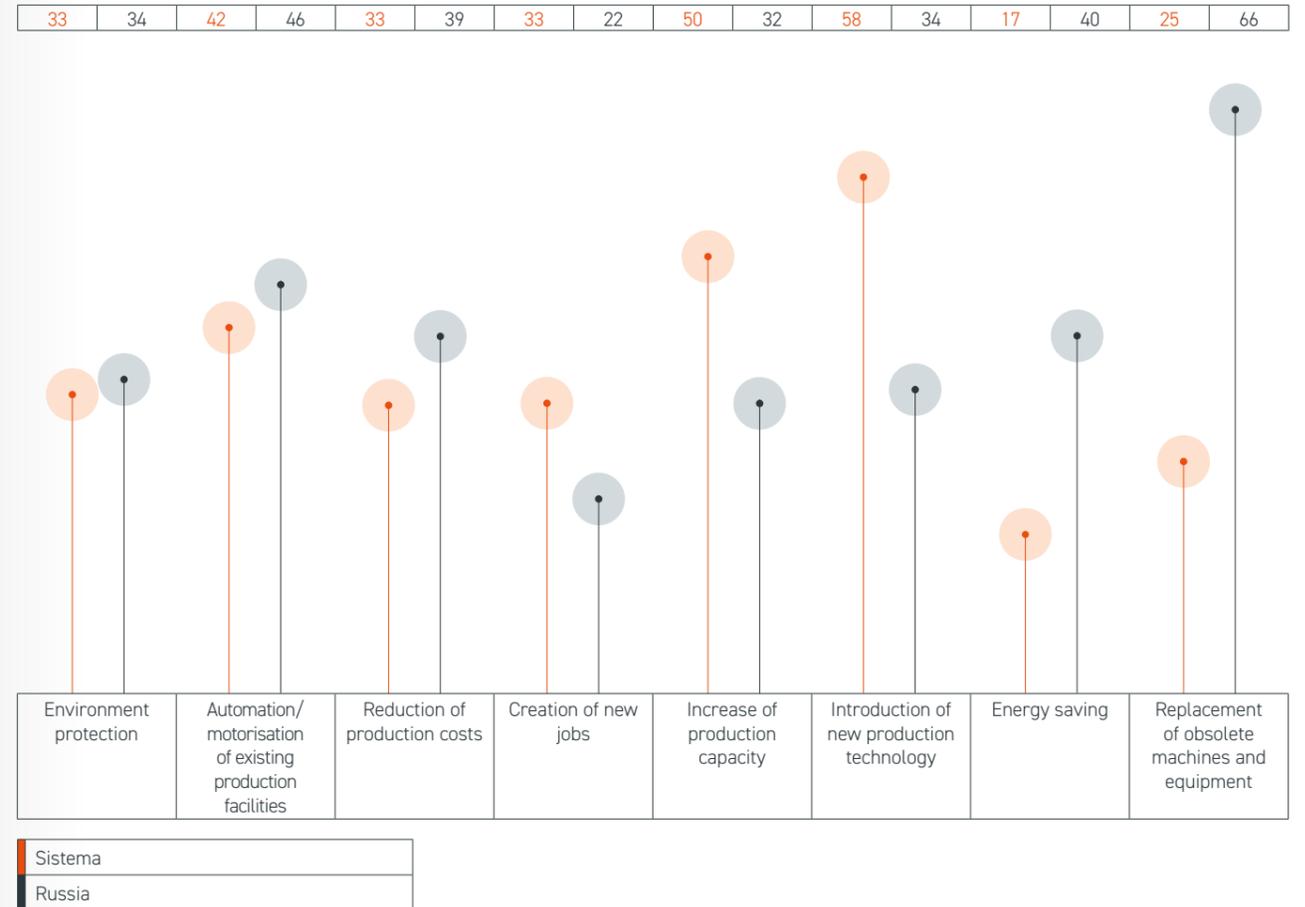
**UNVESTED IN UPGRADE AND MODERNISATION OF OUTDATED POWER GRID EQUIPMENT IN 2018**



Investments of **Steppe AgroHolding** grew 18.8% in 2018 and amounted to RUB 1.9bn: the company carried out new investment projects in dairy farming and logistics. It started test operations at the first state-of-the-art dairy farm for 1,800 cows in the Krasnodar region, and in summer began constructing another two dairy mega farms – for 3,000 cows in Krasnodar and for 3,100 in the Rostov region. This high-tech farm alone will create about 150 jobs.

**RUB1.9 bn**  
**INVESTMENTS OF STEPPE AGROHOLDING IN 2018**

**BREAKDOWN OF THE GROUP'S CAPEX BY PURPOSE OF INVESTMENT IN FIXED ASSETS MADE BY RUSSIAN COMPANIES IN 2018<sup>1</sup>,%**



<sup>1</sup> Investments in fixed assets in Russia in 2018, page 5

# EFFICIENT MANAGEMENT

CORPORATE GOVERNANCE HIGHLIGHTS	74
ETHICS AND ANTI-CORRUPTION EFFORTS	77
RISK MANAGEMENT	82
SUPPLY CHAIN MANAGEMENT AND PROCUREMENT	86
HR MANAGEMENT	90
ENVIRONMENTAL IMPACT	103



# Corporate governance highlights

GRI 102-18  
GRI 102-22  
GRI 102-32



“Since the Corporation is preparing for serious changes in the investment focus, the governance system is being altered accordingly. We used to manage our portfolio assets through numerous mechanisms, but now we are transitioning to a simpler and more straightforward model: there is the CEO who is in charge of a business, and there is the chairman of the asset's board of directors, who in most cases is a managing partner at the Corporation. And this tandem should work extremely responsibly. We plan to increase the role of boards of directors and their committees and enhance the competencies and the level of responsibility of the management of each particular business.”

**ANDREY DUBOVSKOV**  
President of Sistema

The reporting period was an important stage in the evolution of Sistema's management model towards a target philosophy that provides for a decentralisation of asset management, greater flexibility and speed in decision-making, and sophisticated mechanisms for investing through funds. In accordance with Sistema's new development concept, the Corporation introduced the partnership model in 2018 and increased the role of the board of directors as the main tool for asset management.

Corporate governance practices at Sistema are regulated by the Corporate Governance Code that was approved by the Corporation's Board of Directors and meets the applicable legal requirements, rules and recommendations of Russian and UK market regulators, as well as the best Russian and international standards, and is continuously improved, including based on the results of an independent assessment conducted by the Russian Institute of Directors (RID) as part of the procedure of awarding a National Corporate Governance Rating (NCGR), and annual internal assessments of the Board of Directors' work. An independent firm is engaged to assess the work of the Board of Directors at least every three years.

The existing corporate governance system ensures transparency and accountability, makes it possible to balance various interests when concluding transactions and achieve the required level of interaction with assets to achieve Sistema's strategic goals. This is facilitated by the following key aspects of Sistema's corporate governance system:

- ▷ The Corporation ensures a **constructive dialogue between shareholders and members of governance and control bodies** during General Meetings of shareholders not only on the meeting's agenda items, but also on Sistema's activities in general. In addition, any shareholder or potential investor who wants to get information about the Corporation may send their questions through an e-form that was created in 2018 on Sistema's corporate website in the Investors & Shareholders section, and get answers. This page also offers answers to the most frequently asked questions.

- ▷ **Independent directors account for more than one-third of the members of Sistema's Board of Directors.** As of 31 December 2018, the share of independent directors on the Corporation's Board was **45.5%**, while executive and non-executive directors accounted for **9%** and **45.5%**, respectively. One of the independent directors – Anna Belova, who was nominated to Sistema's Board in 2017 by a group of professional investors – became deputy chair of the Board in July 2019, virtually performing the functions of a senior independent director.
- ▷ **The Board of Directors has 5 committees in charge of all the key business aspects** that require collective discussion: strategy; audit, finance and risk; nomination, remuneration and corporate governance; ethics and control. The composition and functions of the Committees meet the List A Level 1 Listing Rules of Moscow Exchange and the principles of the Corporate Governance Code recommended by the Russian Central Bank. The Audit, Finance and Risk Committee, the Nomination, Remuneration and Corporate Governance Committee, the Investor Relations and Dividend Policy Committee, and the Ethics and Control Committee are chaired by independent directors (the latter from 2019). The Audit, Finance and Risk Committee comprises two independent directors with experience and expertise in the preparation, analysis, evaluation and audit of statutory (financial) accounts.

**AFTER THE LATEST ASSESSMENT IN APRIL 2018, SISTEMA'S RATING WAS CONFIRMED AT**

**8**

**WHICH STANDS FOR "ADVANCED PRACTICES OF CORPORATE GOVERNANCE"**

The efficiency of corporate governance and quality of decisions taken, as well as the availability of information for shareholders, investors and all stakeholders, remains the constant priority for the Corporation as **a key factor of its transformation from an operational company into an investment firm in accordance with best international practices.**

- ▷ **The Board of Directors efficiently carries out the function of strategic management of the Corporation.** The prevalence of physical meetings (**about 70%** in 2018, with an average quorum of **95.5%** present) ensures comprehensive collective discussions of agenda items. The Corporation continues the practice of having the key agenda items challenged by independent directors at preliminary meetings. This approach significantly increases the involvement of Board members in the analysis of the Corporation's investment projects and the shaping of its strategy.
- ▷ Most items that were reviewed by the Board of Directors in the reporting period pertained to the Corporation's business strategy and value creation for its investments (**32%**), approval of transactions (**16%**) and HR policies (**15%**).
- ▷ The **remuneration** of Sistema's management is linked to the Corporation's performance and combines short- and long-term incentives (an option plan with a focus on Sistema's MCap growth).
- ▷ The Corporation has a **succession pool** of candidates for senior executive positions.
- ▷ Sistema has a structural division that performs the functions of an **internal auditor** and reports to the Board of Directors; the company selects external auditors in an open tender (currently Deloitte) and makes sure that the partners in charge of Sistema audits are regularly rotated.
- ▷ The Board of Directors annually **assesses the efficiency** of the risk management system and reviews a report from the internal control team.

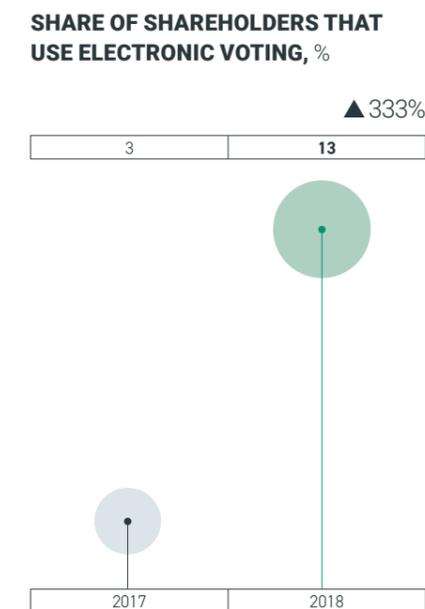
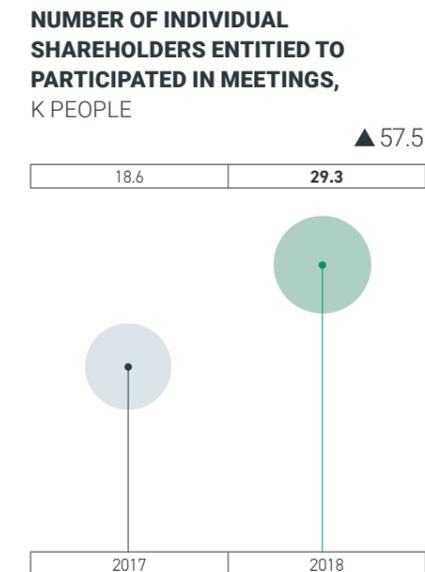


“Sistema's Board of Directors has a very well-balanced expertise. The number of independent professional directors on Sistema's Board is quite sufficient to comprehensively review any decision to be made from all potential angles.”

**ANNA BELOVA**  
Deputy Chairman of the Board of Directors of Sistema PJSC

- ▷ The Corporation works systemically to ensure **information openness**. Sistema regularly discloses its financial statements under RAS and IFRS, including interim IFRS statements with management's notes for Russian and international investors.
- ▷ The Corporation implements **CSR** projects for all groups of stakeholders. The strategy in this area is approved by the Board of Directors. The Corporate Governance and Ethics Code of Sistema sets out the additional commitments of the Corporation, its top management and employees in the area of social responsibility, transparency and ethical business principles.

For more information about the corporate governance system, see the **Annual Report** for 2018, pages 84-103



**PARTNERSHIP MODEL AND FUND STRUCTURE**

The partnership model introduced by the Corporation allows its key executives-- Managing Partners--to share with shareholders the risks of and returns on investment activities. This model is based on Managing Partners' co-investment in portfolio assets they are responsible for, while the incentive system encourages the growth of capitalisation, the maximisation of assets' values, and their monetisation.

As a rule, Managing Partners chair the boards of directors of their portfolio assets and are responsible for the implementation of their investment and business strategies, the development and maintenance of effective corporate governance systems, proper compliance, and accountability to stakeholders.

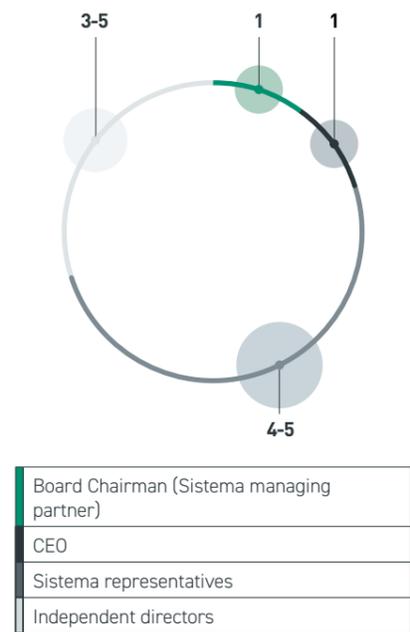
The transition to the new management model brings Sistema closer to the investment company format: on the one hand, the Corporation will be less involved in the direct management of assets that are independent in their operations, and on the other, investors will be able to get access to its non-public businesses by participating in investment partnerships and funds that will be established to invest, among other things, in non-controlling stakes of attractive companies.

**ASSET MANAGEMENT SYSTEM**

In order to improve the quality of the composition and work of portfolio companies' boards, the remuneration system for independent directors was fine-tuned in accordance with international standards. In the past year, the composition of some portfolio companies' boards has come close to the target model:

- ▷ the share of key assets in Sistema's portfolio where the number of independent board members meets corporate standards was about 60% as of the end of 2018;
- ▷ the number of companies where boards are chaired by Sistema's Managing Partners tripled, and their share in the portfolio grew from 23.5% to 63%;
- ▷ the number of assets that have several representatives of the Corporation on their boards increased by 50%, and their share rose from 35% to 47%;
- ▷ the share of portfolio companies where top executives are members of the board exceeded 80%.

**TARGET BOD MODEL FOR PORTFOLIO COMPANIES 100% (9-11 MEMBERS)**



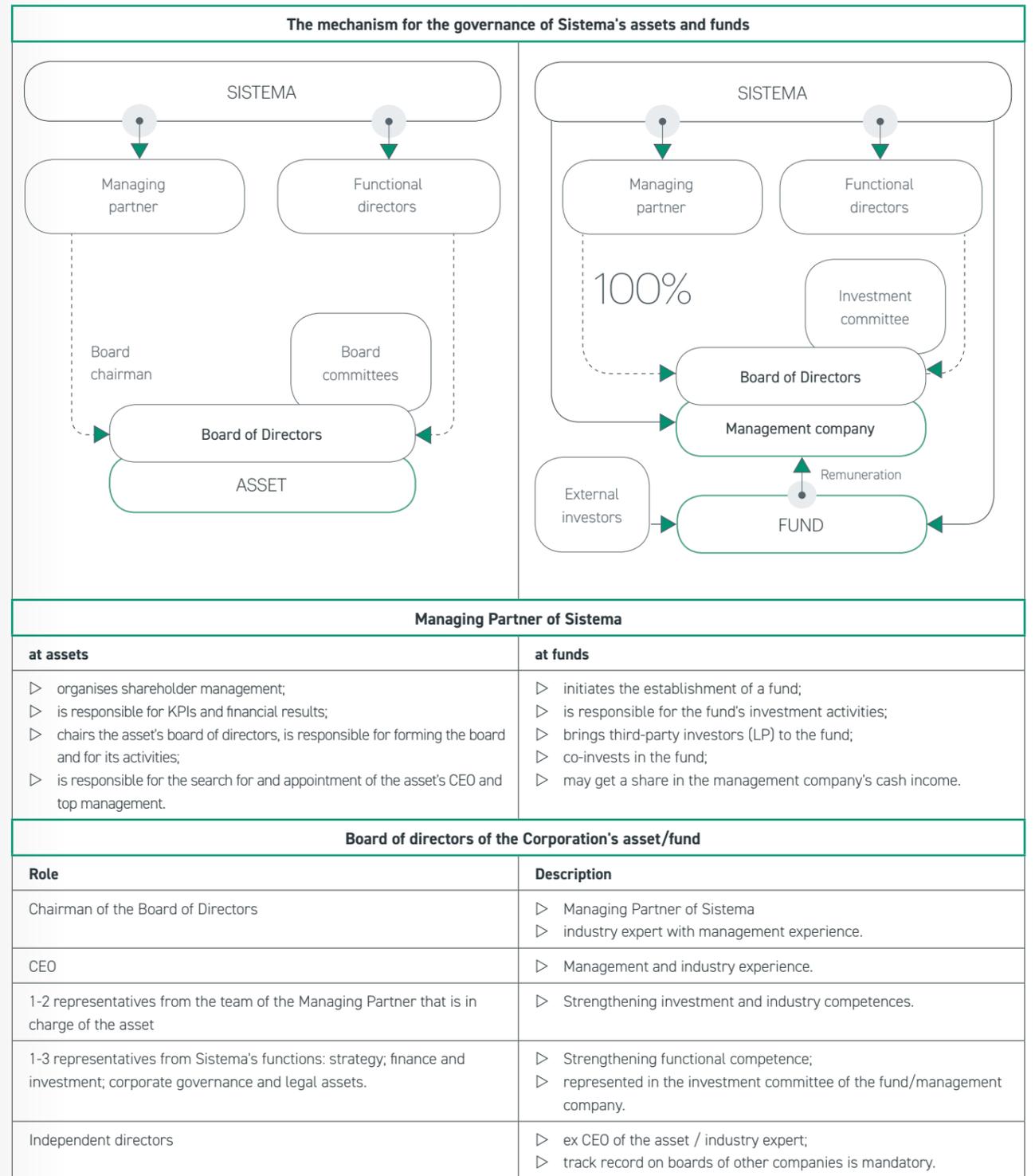
In 2018, Sistema and MTS were named among the top 10 companies for corporate governance disclosures, according to the National Corporate Governance Rating<sup>1</sup>. MTS also made it to the top 5 ranking of corporate governance systems, based on the results of an annual survey of corporate governance quality in Russia. Detsky Mir was included in the top ten issuers of corporate governance reports<sup>2</sup>.

The Corporation also approved governance principles designed specifically for its many funds, with the investing process aligned with Sistema's CG standards, and effective monitoring and control tools put in place (in terms of governance costs and in other respects).

**6**  
**SISTEMA'S MANAGING PARTNERS THAT ARE IN CHARGE OF SHAREHOLDER MANAGEMENT AND RESPONSIBLE FOR THE PERFORMANCE OF MORE THAN 20 ASSETS AND FUNDS OF THE CORPORATION<sup>3</sup>.**

<sup>1</sup> According to the annual survey by the TopCompetence corporate development centre, with the participation of the Systemic Transformation Centre of the Economics Department, the Moscow State Lomonosov University, and Moscow Exchange.  
<sup>2</sup> According to Arsagera Management, as of August 2019.  
<sup>3</sup> As of 31 December 2018, Sistema's Management Board comprised 5 Managing Partners.

**THE MECHANISM FOR THE GOVERNANCE OF SISTEMA'S ASSETS AND FUNDS**



## CONTRIBUTION TO IMPROVING THE QUALITY OF CORPORATE GOVERNANCE AND STOCK MARKET INFRASTRUCTURE IN RUSSIA

Representatives of the Corporation actively participate in the activities of organisations that promote latest corporate governance practices in Russia, such as the National Association of Corporate Secretaries and the Club of Corporate Secretaries; as part of cooperation with the Agency for Strategic Initiatives and the work of the Issuers' Committee of the Moscow Exchange, they participate in reviewing legislative and regulatory initiatives in the area of civil and corporate law and the stock market.

Sistema Group owns one of Russia's biggest registrars with a unique stock market track record since 1993, JSC Reyestr. The Corporation and its subsidiaries hold 84% in the company. JSC Reyestr is regularly included in the top 5 Russian registrars for consolidated performance. It offers a full range of services related to keeping registries of securities owners, organising the work of teller commissions at general meeting of shareholders, preparing and implementing corporate procedures, and also providing consultancy services in corporate governance and intellectual property rights not only for Sistema and its subsidiaries (MTS Bank, MGTS, BPGC, Segezha Group, Medsi, Detsky Mir, etc.), but also for many other major players in the Russian market, such as FosAgro, Dixy Yug, Bashkir Soda Company, Bayer, PwC, KPMG, etc.

The reliability and excellent business reputation of JSC Reyestr are regularly confirmed by its leading positions in the National Rating of Registrars, where it was No. 4 in 2018<sup>1</sup>. It is also one of the top 3 registrars by the number of serviced issuers with more than 500 owners. The use of in-house state-of-the-art technologies, a team of over 300 highly professional employees, 25 branches--from Smolensk to Vladivostok and from St. Petersburg to Makhachkala--and a broad network of transfer agents make it possible for JSC Reyestr to service almost 5,200 joint-stock companies with 900,000 personal accounts in 70 regions of Russia.

The company is a leader in terms of innovations and electronic services (including electronic personal accounts, voting ballots, and a registrar fee payment service) and actively participates in the work of the Professional Association of Registrars, Transfer Agents and Depositories (PARTAD), promoting its initiatives related to the technological development and improvement of the methodology and legal framework of the securities market through its representatives on the association's board of directors and committees.

Reyestr's regular educational activities are also in demand in the market. In the reporting year, its experts organised numerous free educational events related to the important issues of protection of investor rights and interests and practical application of corporate law: 25 webinars, 5 business breakfasts, and 10 seminars across Russia.

The company puts a premium on the training of young specialists and professional growth of its employees. In the past 5 years, over 40 graduates of Moscow's leading law and economic schools undertook internships at Reyestr, and the best of them got jobs at the company. As part of regular internal trainings of employees, Reyestr organises seminars where experienced professionals share useful tips on the nuances of transactions and process chains of projects, which significantly improves work quality.

The immediate strategic areas for the company's development are in the further development of e-services for customers, the expansion of the range of services (both as a registrar and as a consultancy), the enhancement of service quality, and the increase of the company's regional footprint.

## PLANS FOR THE DEVELOPMENT OF THE CORPORATE GOVERNANCE SYSTEM:

- ▷ Boosting interaction with Sistema's minority shareholders;
- ▷ Refining governance structures of portfolio companies;
- ▷ Aligning the funds' governance systems with Sistema's standards, including the fine-tuning of the incentive system and the development of co-investment practices.

<sup>1</sup> The National Rating of Registrars is compiled by the Infrastructure Institute Fund for Financial Research (IIFFR) in cooperation with the Professional Association of Registrars, Transfer Agents and Depositories (PARTAD) on the basis of comprehensive (qualitative, quantitative and expert) assessment of registrars' activities. [reestring.ru/rezults\\_2018.php](http://www.reestring.ru/rezults_2018.php); [http://www.reestring.ru/top\\_em\\_.php](http://www.reestring.ru/top_em_.php)

# Ethics and anti-corruption efforts

GRI 102-16

GRI 103-2

Business ethics, prevention of corruption and unlawful disclosure or use of inside information, and observance of human rights are among Sistema's essential principles of operation and elements of its risk management system.

## BUSINESS ETHICS

Sistema's Code of Ethics reflects the views of the Corporation's management with respect to fundamental values of corporate culture and social responsibility that are meant to ensure transparent, fair, and ethical business practices. The Code is binding on all employees and counterparties of the Corporation. All new hires take a mandatory online training on ethics, and obligations to comply with ethical norms are set down in employment agreements. Sistema promotes the implementation of responsible business conduct principles across the Group. All key companies of the Group have adopted and regularly update their codes of ethics.

All matters of business ethics and responsible conduct are supervised by Sistema's Ethics and Control Committee and Management Board. Sistema's Ethics and Control Committee had eight meetings in 2018, discussing the results of an ethics declaration campaign, the functional strategy of the Internal Control and Audit Department for 2018-2019, the current status of anti-corruption measures being implemented in specific companies of the Group, and findings of probes based on Hotline reports.

For more details on the management structure as applied to matters of ethics see [2017 Sustainability Report](#), page 62.

No violations of the Code of Ethics were identified at Sistema in the reporting period. Several non-material cases of non-compliance with the Codes of Ethics were detected in several assets of Sistema Group. All of these cases were reviewed in due time by such companies' Discipline Committees. The persons found to have breached the ethical standards were subjected to disciplinary action.

Since 2016, the Corporation has been holding annual ethics declaration campaigns involving all middle and top managers. The procedure makes it possible to quickly identify potential conflicts of interest and address them. As many as 142 employees filled in declarations in 2018.

The potential conflicts of interest stated by employees were ruled to require no further resolution as declarants were judged to have no influence on decisions made regarding the compensations and other payments made to their immediate family members employed within the Group, or due to no actual competition with the Corporation (in cases when declarants owned other businesses). A new ethics declaration campaign scheduled for 2019 is designed to reach out to a broader range of employees across the Group.

# 100%

**OF MIDDLE AND TOP MANAGERS SUCCESSFULLY PASSED THE ETHICS DECLARATION CAMPAIGN AT SISTEMA**

## DEVELOPMENT OF THE COMPLIANCE SYSTEM

An important step towards increasing the control over compliance with existing legislation and Sistema's internal regulations was the decision made in 2018 to create a single compliance system at the Corporation, including:

- ▷ anti-corruption compliance;
- ▷ anti-monopoly compliance;
- ▷ stock exchange compliance (including the treatment of insiders and inside information);
- ▷ compliance related to the protection of personal data and confidential information;
- ▷ compliance related to the prevention of money laundering and terrorism financing; etc. .

For the purpose of building an effective compliance system, a working group was set up, which is chaired by Sistema's Corporate Secretary and comprises representatives of the Board's Secretariat, the Corporate Governance and Legal Matters Department, the Internal Control and Audit Department, the Security Department, etc. The working group is tasked with assessing compliance risks, developing an action plan for their mitigation, coordinating its implementation, and drafting Sistema's uniform policy on compliance.

**PREVENTION OF DISCLOSURE OF INSIDE INFORMATION**

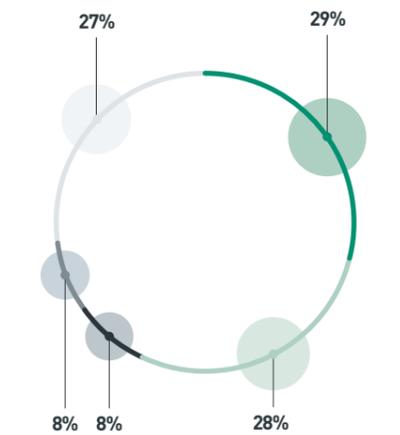
As a public company, Sistema is very exacting in ensuring compliance with applicable laws and regulations that govern the handling of inside information. The Corporation makes it a point to provide its employees with the maximum amount of information on such laws and regulations as well as requirements of stock market regulators of Russia and the UK.

Sistema keeps and regularly updates the list of persons who have access to inside information and imposes moratoriums on any employee transactions involving the Corporation's securities before disclosing financial statements or any other material events. Any employees planning a transaction involving securities issued by Sistema or its public assets must in good time inform the Corporate Secretary of such plans. In 2018, Sistema continued awareness-building efforts with regard to insider information: training is organised both for the Corporation's existing employees and for new ones in the first days after hiring.

The bulk of messages received through the Hotline pertained to sales and customer service in the retail sector (29%) and HR issues (28%).

In 2018, we received about 1,000 relevant reports on the whistleblowing hotlines of the Group's companies, out of which 479 (48%) were confirmed. The growth in the share of confirmed reports (48% in 2018, 41% in 2017 and 37% in 2016) indicates an increase in employee trust towards the hotline. Following enquiries into the reports received via the hotline, disciplinary penalties were applied to 62 employees of the Group's companies (of which 7 employees were dismissed).

**NUMBER OF MESSAGES RECEIVED THROUGH THE HOTLINE IN 2018, BY SUBJECTS**



Retail sale and services
HR management
Contractual performance
Procurement
Other

**GRI 102-17 HOTLINE**

The Corporation has a whistleblowing Hotline programme in which all Sistema executives and employees as well as any stakeholders are invited to share (openly or anonymously) any information they might have about any abuse, corrupt practices, omissions, and deficiencies within the corporation. In the interests of independence of judgment, all hotline reports are reviewed by Sistema's Internal Control and Audit Department.

All of the Group's operating companies have their own Hotlines. Users may insist on follow-up investigations should they be unsatisfied with the quality of probes made on the basis of their initial reports.

**HOTLINE AT BPGC**



In 2018, BPGC updated its policy on the whistleblowing hotline: additional capabilities were added and the range of potential whistleblowers expanded. The Hotline now applies not only to the company's employees, but also to third parties (including counterparties, partners, consumers, clients, suppliers, and contractors), which makes it possible for an unlimited circle of people to inform the company about identified deficiencies. In 2018, BPGC received 234 messages through the Hotline, which were checked by the Internal Control and Audit Department.

**HUMAN RIGHTS**

Sistema and its portfolio companies seek to fully observe the human rights and liberties outlined in the key relevant international and national regulations. The Corporation adheres to the principles of tolerant and respectful attitude to racial, religious, physical and other differences of its employees and views child and forced labour as unacceptable. Provisions on zero tolerance of discrimination and violation of human rights are included in the Code of Ethics and the HR Management Code, as well as relevant internal regulations of the Group's companies.

Complaints related to the infringement of human rights may be made through the Hotline. No cases of discrimination or violation of human rights were identified in the Corporation in the reporting year.

Sistema strictly adheres to the principles of privacy and ensures protection of the personal data that it keeps. The Corporation has a policy on processing and protection of personal data in place, which was updated at the beginning of 2019 in compliance with Russian law. Its provisions are mandatory for all employees of Sistema that have access to personal data of its employees and job candidates, shareholders, nominees and members of the boards of directors and other governance bodies of the Corporation and the Group's companies. The Policy also applies to the personal data of individuals included in the list of insiders, all counterparties that are in contractual relations or in talks with the Corporation, and to visitors of its offices. There have been no personal data leaks identified in 2018.

**HUMAN RIGHTS IN THE WORKPLACE PROGRAMME AT MTS**

In 2018, MTS approved a new version of its policy on corporate social responsibility, with an annex on human rights that is mandatory for all employees to familiarize themselves with. It also edited the section on CSR, including the part related to human rights, in its Supplier Code of Conduct. In 2019, the company intends to develop a fundamental corporate document, Principles of Human Rights Observance, and a training course on the key aspects of human rights related to its activities.



**ANTI-CORRUPTION**

Sistema has zero tolerance to corruption and other types of fraud at any level, in any form and in any activity, including interactions with shareholders, investors, counterparties, governmental authorities, political parties, and non-profits. Efforts to prevent corruption, fraud and theft are integrated in strategic and operational management and Sistema's business processes, and covers all units of the Corporation and companies of the Group.

In 2016, the Corporation adopted a Corruption Prevention Concept, which was developed in accordance with Sistema's Anti-Corruption Policy and determines the approaches to and methods of counteracting corruption, fraud, and embezzlement. The document reflects the key requirements of the Russian and foreign anti-corruption legislation, including the UK Bribery Act 2010 / UKBA, and other applicable regulations and best practices. Corresponding provisions were added to the Code of Ethics and other internal regulations<sup>1</sup> of Sistema, and all agreements with counterparties include a mandatory anti-corruption clause. Anti-corruption regulations are mandatory for all of its employees. The company's assets have their own internal documents adopted.

Anti-corruption measures include the development of internal regulations, monitoring of the key business processes (including tenders and agreements), identification and mitigation of corruption risks during transactions, and training of employees on the subject of corruption prevention. These efforts usually require the collaboration of multiple departments of Sistema.

The Corporate Governance and Legal Affairs Department is in charge of preventive measures related to the evaluation of new legislation and updates of internal corporate regulations and the contents of anti-corruption distance training courses (adjusted to comply with the UKBA) prescribed by the HR Department for the employees of the Corporation and, if necessary, portfolio companies.

The Security Department is responsible for identifying and addressing incidents of corruption, working to prevent corruption and fraud at Sistema, in regular cooperation with economic security teams of portfolio companies.

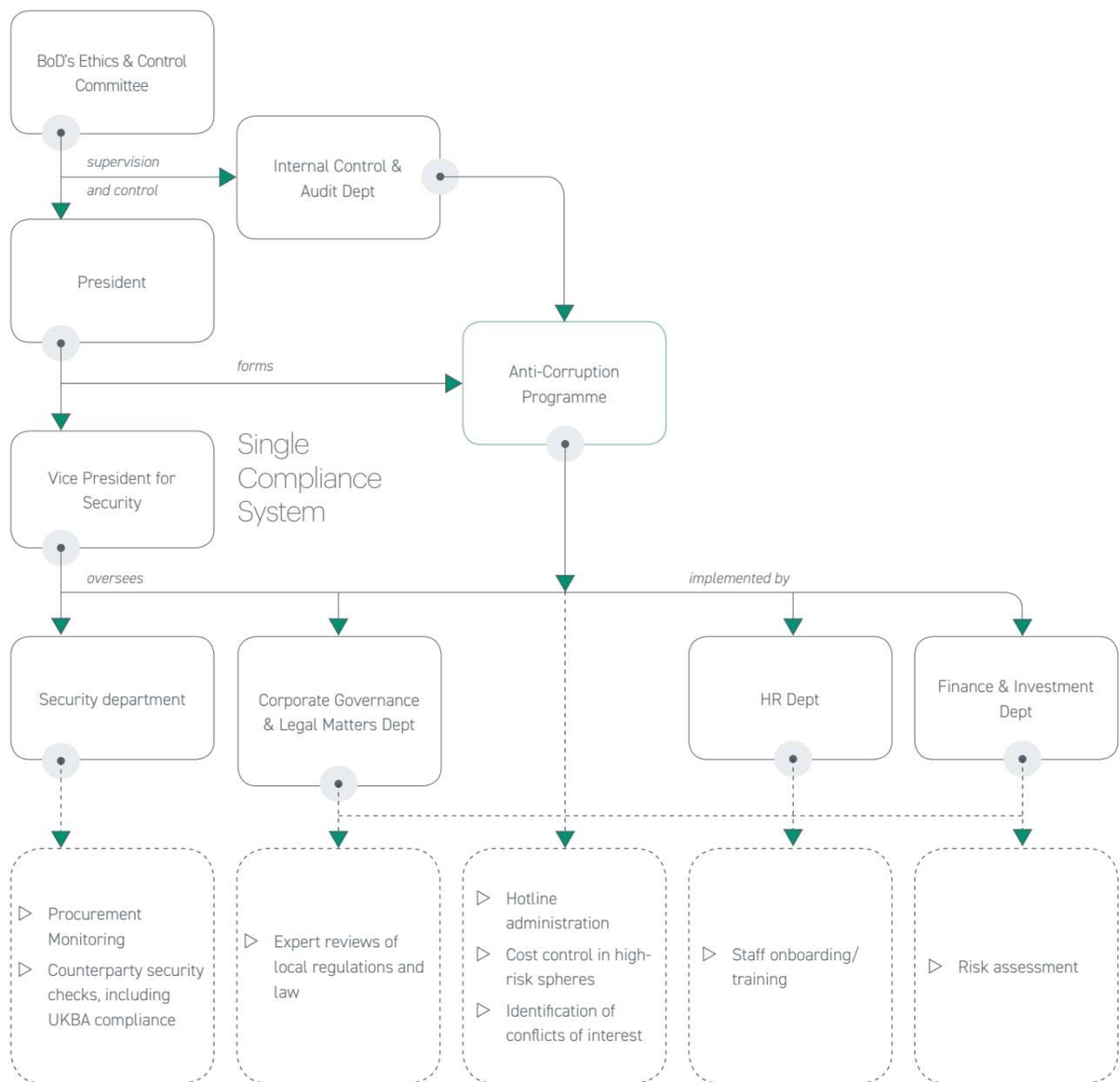
The Internal Control and Audit Department is tasked with monitoring and controlling the effectiveness of anti-corruption efforts, while the working group on compliance develops a general action plan in this area.

Prevention of abuse, fraud and corruption is assisted by the Corporation's counterparties, business partners and portfolio companies, as they may report incidents of abuse to Sistema's Whistleblowing Hotline. In their turn, all counterparties are vetted by the Security Department and/or external consultants hired for compliance due diligence.

Any identified episodes of corruption, fraud and theft are investigated.

<sup>1</sup> The Security Code, the Investments and Projects Code, the Tenders and Procurement Code, the Equipment and Materials procurement code.

**DISTRIBUTION OF RESPONSIBILITY AND INTERACTION FOR PREVENTION OF CORRUPTION, FRAUD AND THEFT**



**DIGITALISATION OF FRAUD AND ABUSE PREVENTION**

In December 2018, the company launched Anti-Fraud, an automated fraud and abuse incident recording system, in a pilot mode. It collects and analyses in real time information about the number of identified deficiencies, criminal cases initiated, the amount of inflicted, recovered and

prevented damage by type of fraud, etc. Information about each incident includes regularly updated data on the guilty parties, the amount of damage, measures taken and risks. The system is in operating mode since January 2019.

In 2018, Sistema significantly expanded the range of tools used to fight corruption and other illegal actions. In November, the Ethics and Control Committee of the Board of Directors approved an action plan for the identification and prevention of fraud at the Corporation and the Group's companies.

The key steps for fraud identification and prevention planned for 2019 include the assessment of the effectiveness of fraud prevention programmes and the development of a mechanism for informing employees and stakeholders about investigation findings.

**GRI 205-3 RESULTS OF CORRUPTION, FRAUD AND THEFT PREVENTION EFFORTS**

The Corporation regularly monitors the efficiency of anti-fraud efforts. The results are analysed as part of quarterly assessments of portfolio companies' performance, with all investigation findings communicated to stakeholders. The most important information is included in weekly reports prepared by Sistema's Security Department for senior management.

In 2018, Sistema's Security Department and economic security units of the Group's companies identified 338 incidents of misconduct by employees and third-party legal entities and individuals that infringed on the Corporation's interests, preventing damages to a total value of nearly RUB 9m.

**GRI 205-2** The Corporation continued to educate its employees and business partners about policies and methods aimed at the prevention of corruption, fraud and theft. All new employees are required to take online anti-corruption courses.

**ANTI-CORRUPTION RESULTS**



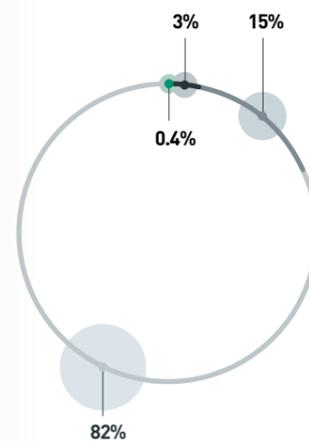
**PREVENTED DAMAGE, RUB M**

	<b>2016</b>	<b>2017</b>	<b>2018</b>
Prevented damage	80.3	0.011	5.16
Recovered losses	2.1	2.06	3.74

**TRAINING ON ANTI-CORRUPTION PROCEDURES FOR EMPLOYEES IN 2018, PERSONS**

Number of employees that received training on anti-corruption procedures in 2018	Companies of the Sistema Group
Senior management	95
Middle management	798
Junior management	4,000
Grassroots	22,352
<b>Total</b>	<b>27,245</b>

**ANTI-CORRUPTION TRAININGS IN 2018, BY CATEGORY**



Senior management
Middle management
Junior management
Grassroots

In 2018, Sistema Group organised a specialised training session for key employees on the basic requirements of applicable anti-corruption legislation of the US, the UK, and Russia. Over 120 employees attended the session in person or by video conference.

The Corporation also regularly informs its business partners and suppliers about anti-corruption policies and methods. All Group companies include corresponding clauses in contracts with their counterparties, making them obligated to comply with the Corporation's anti-corruption requirements. In 2018, such provisions were included in over 700 agreements at Sistema alone.

**PLANS FOR 2019**

In order to prevent and fight corruption, fraud, and theft, Sistema plans to do the following:

- ▷ organise a seminar on corruption prevention for all employees of Sistema;
- ▷ monitor Russian and applicable foreign legislation related to corruption prevention on a regular basis;
- ▷ update (if necessary) the Corporation's internal regulations related to changes in Russian and applicable foreign legislation;
- ▷ make sure that anti-corruption clauses are included in contracts, agreements and other legally binding and non-binding documents;
- ▷ provide methodological support to Sistema's asset companies as they refine their internal regulations.

**27,000+**

**NUMBER OF EMPLOYEES THAT RECEIVED TRAINING ON ANTI-CORRUPTION PROCEDURES IN 2018**

**100%**

**OF SISTEMA'S COUNTERPARTIES HAVE BEEN INFORMED ABOUT ITS ANTI-CORRUPTION POLICIES AND METHODS**

# Risk management

GRI 102-15

Effective risk management is one of the important prerequisites for the stability of the Corporation's business. Sistema and its portfolio companies have an integrated risk management system (Enterprise Risk Management, ERM) based on international standards, recommendations and best practices in risk management. Integrated Risk Management aims to reasonably guarantee the achievement of strategic goals and maintain the level of risk at Sistema PJSFC within limits acceptable to its management and shareholders.

The key principles of risk management at the Corporation are:

- ▷ **Integrated approach.** A systematic approach to managing all types of risks intrinsic to the business of Sistema PJSFC across the organisational structure and geographies where it operates, including:

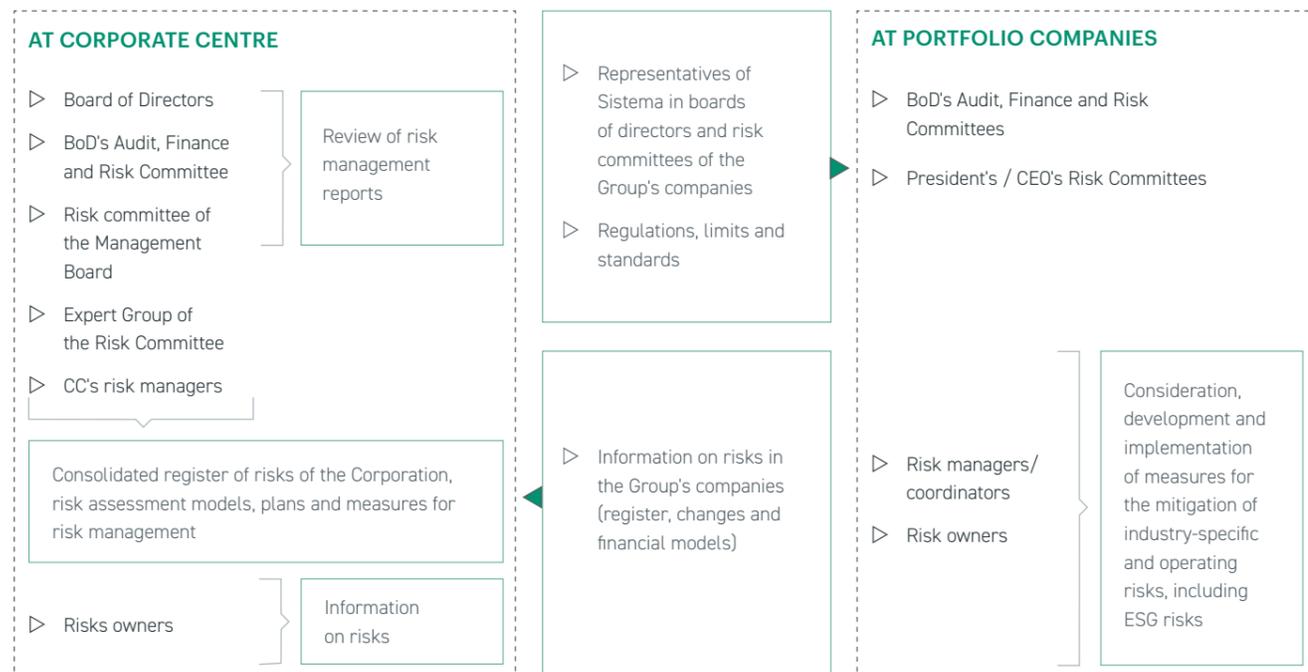
- interaction and coordination between various structural divisions in matters risk management, regardless of their specialisations,
  - consideration of cross-effects of risks of different departments,
  - a single channel for notifying the Group's management and shareholders about the entire range of risks, to ensure that complete, reliable, and consistent information is provided to every decision-making level.
- ▷ **Continuity.** Regular implementation of a system of streamlined risk management procedures.
  - ▷ **Reasonableness.** The costs of reduction of a risk are carefully analysed in relation to the potential damage it can cause.

For more information on the risk management system, see the **Annual Report**, pp. 104-109.

In December 2018, Sistema's Board of Directors approved the Policy on Integrated Risk Management at Sistema PJSFC, which reflects the key principles of the updated risk management concept COSO ERM 2017 and international standards ISO31000:2018, as well as organisational changes in the Corporation's risk management system. The Risk Subcommittee under the Finance and Investment Committee was transformed into the Risk Committee of the Management Board and the Expert Group of the Risk Committee.

Risk management is integrated in operations and is an inalienable part of all processes at Sistema: strategic planning, investment, budgeting, and procurement procedures.

## PARTICIPANTS OF RISK MANAGEMENT SYSTEM AT THE CORPORATION



Business processes	Risk-oriented approach
Strategy planning and implementation	<ul style="list-style-type: none"> <li>▷ Identification of risks associated with various states of the exterior environment;</li> <li>▷ Analysis and consideration of material risks when implementing a particular macro scenario;</li> <li>▷ Identification of material risks that are intrinsic to a strategy but do not cause it to be revised, and provide for additional actions to be taken for the sake of their management.</li> </ul>
Investment process	<ul style="list-style-type: none"> <li>▷ Analysis of risks related to big investment projects, including M&amp;A deals;</li> <li>▷ Analysis of project risks related to the achievement of key performance indicators.</li> </ul>
Budgeting	<ul style="list-style-type: none"> <li>▷ Analysis of risks related to the achievement of key financial indicators.</li> </ul>
Procurement procedures	<ul style="list-style-type: none"> <li>▷ Analysis of risks related to the selection of counterparties/suppliers (their reliability, performance discipline, quality of services, etc.)</li> </ul>
Operations	<ul style="list-style-type: none"> <li>▷ Analysis of risks related to the company's day-to-day operations: personnel, IT, security, etc.</li> </ul>
ESG	<ul style="list-style-type: none"> <li>▷ Analysis of social, economic and management risks.</li> </ul>

## ESG RISKS IN THE CORPORATION'S SUSTAINABLE DEVELOPMENT

Significant risks at the level of Sistema are those risks that can have a negative impact on its financial stability, shareholder value and reputation, including the state of the global, national and regional economies, political (including geopolitical) and social environment, and legal aspects of the Group's activities and regulatory requirements (including anti-corruption, labour, environmental and other provisions). All ESG risks are routinely identified, evaluated and managed based on the degree of their impact on the implementation of the Corporation's overall strategy (top level) and the operating activities of its portfolio companies. The biggest ESG risks at the Corporation's level are risks related to Sistema's reputation and brand as its crucial intangible assets. In order to mitigate these risks, the Corporation and its portfolio companies have put in place a system of corporate governance and compliance that reduces to minimum the probability of unfavourable events and their impact on capitalisation.

### CORRUPTION RISK MANAGEMENT

Sistema identifies two key corruption-related risks and performs the necessary procedures to manage them:

- ▷ the risk of breach of UK compliance requirements (violating the rules of UK stock market regulators or requirements of Russian or UK anti-corruption laws).
- ▷ the risk of fraud (more typical for portfolio companies).

Procedures for managing corruption-related risks:

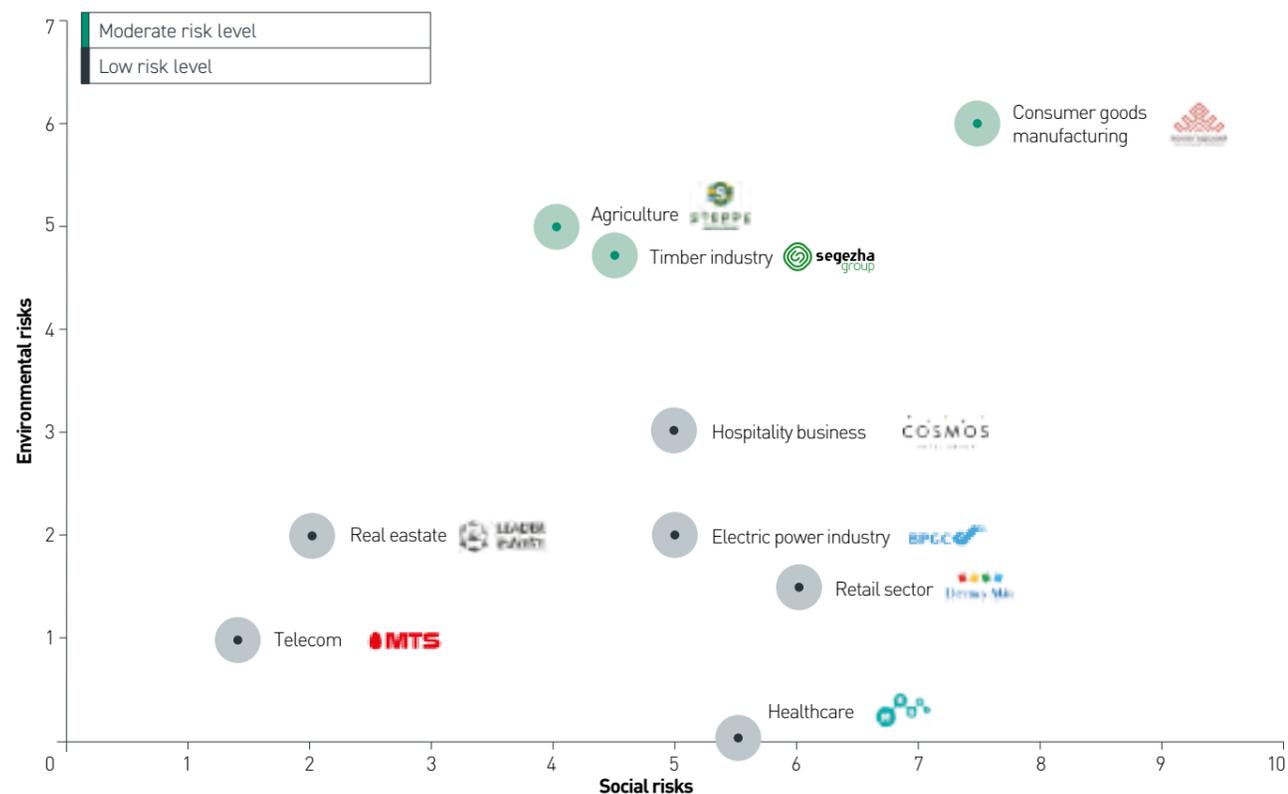
- ▷ Monitoring the requirements of the UK and Russian stock market regulators and anti-corruption standards applicable to Sistema.
- ▷ Updating Sistema's internal regulations to cover relevant requirements of the UK and Russian laws that stipulate direct responsibilities of Sistema's governance bodies and employees with regard to compliance and supervision.
- ▷ Identifying the most typical corruption risks, formulating adequate procedures to mitigate them, including these relevant procedures and controls in Sistema's internal regulations.

Organising regular anti-corruption training sessions for members of the governance bodies and employees, including new hires.

All of Sistema's business processes classified as 'high-risk' (15 processes) and 'risk mitigants' (6 processes) were analysed. The Corporation's Book of Adequate Procedures and related internal documents for each business process were analysed, checking them for completeness and sufficiency with regard to the requirements of applicable and potentially applicable anti-corruption laws, including Russian law, the UK Bribery Act 2010 and best practices, and for potential shortcomings, omissions or gaps.

Assessment of corruption-related risks is mandatory for all companies of the Group; economic security, internal audit and control units monitor them on a regular basis. The Corporation's risk managers regularly exchange information on the subject with the economic security team, circulating memos and reports on identified economic security risks.

**EXPOSURE OF SISTEMA'S ASSETS TO POTENTIAL ENVIRONMENTAL AND SOCIAL RISKS<sup>1</sup>**



In the course of preparation of this report, Sistema's portfolio companies were asked to assess the impact of the biggest social and environmental industry-specific risks on their business sustainability, using a 10-point scale, with 1 being the minimum score and 10 the maximum. Some of the risks that were identified are common for all assets of the Corporation, being related to the effectiveness of production control systems, technical supervision, or occupational health and safety. There are also region- and industry-specific risks related to local living standards, social tensions, local shortage of qualified personnel, and the handling of waste and its potential negative impact on the environment, which are primarily relevant to construction, agricultural, logging, timber-processing, and consumer-goods businesses.

Judging by the scores given, Sistema Group businesses believe their exposure to social and environmental risks to be low to moderate. For the entire portfolio of Sistema, the average impact of social risks is just below 5 pts, of environmental risks, almost 3 pts, and the aggregate estimated impact of such risks is below average, at 3.7 pts.

Material ESG risks for the Group's industrial companies are environmental and occupational risks, as well as risks related to the state of the infrastructure and the threat of accidents, which are critical for telecommunications and power grid companies. The evolution of the digital economy and the digitalisation of portfolio companies makes risks related to cybersecurity and personal data protection increasingly relevant, especially for telecom, online services, finance, and e-commerce.

**RISKS RELATED TO HUMAN RIGHTS**

The Corporation fully complies, and requires all of its assets to comply, with Russian and international human rights laws. The risk management system of the Group's companies takes into account risks associated with HR management, consumer and employee privacy, rights of children, patients, and local communities, including indigenous population of regions of operations.

Sistema's portfolio companies implement their own programmes, projects and measures that reduce the likelihood and possible negative consequences of their industry-specific risks.

GRI 412-1

<sup>1</sup> The risk map is based on the companies exposure to industry-specific risks as assessed by the companies themselves.

**CONTRIBUTION TO IMPROVING THE QUALITY OF RISK MANAGEMENT IN RUSSIA**

Sistema has gained vast experience in building an effective risk management system across the entire Corporation. Sistema's risk managers contribute to the evolution of risk management in Russia through involvement with a variety of professional associations:

- ▷ they are members of the Supervisory Board and Management Board of RusRisk (Russian Risk Management Society), a professional association that works to enhance the effectiveness and sustainability of Russian business via risk reduction;
- ▷ they are involved in the work of the ISO/TC 262 technical committee (Risk Management);
- ▷ together with representatives of the Federal Agency on Technical Regulating and Metrology (Rosstandart), the Russian Union of Industrialists and Entrepreneurs, and the Chamber of Commerce and Industry of the Russian Federation, they actively participate in the working groups on risk management of the International Organisation for Standardisation for adaptation of international standards on risk management in Russia.



Representatives of the Corporation regularly participate in forums, seminars and conferences on risk management, various initiatives launched by the Risk Management Expertise Commission of the Russian Council for Professional Financial Market Qualifications, and in trainings of young specialists for voluntary certification in the area of risk management.

As a member of the relevant standards engineering group, Sistema continues working on the adaptation of the international ISO 31000:2018 Risk management – Guidelines and IEC/DIS 31010 Risk management – Risk assessment techniques to the Russian market. In the reporting period, the Corporation's risk managers acted as speakers and moderators at various risk management events, conferences, round table discussions and business breakfasts organised by RusRisk, PwC, EY, CFO Russia, Thomson Reuters, Palisade and other companies with which the Corporation actively cooperates in this field.

**PLANS FOR THE DEVELOPMENT OF THE RISK MANAGEMENT SYSTEM IN 2019**

Measures scheduled for the development and improvement of the risk management function in the Corporation in 2019 include:

- ▷ Updating the development plan (introduction of the ERM in the new assets, improving maturity of existing risk management systems at portfolio companies);
- ▷ Audit of existing insurance programmes of the Group's companies and recommendations on improving them, including comprehensive insurance of industrial assets (Segezha Group);
- ▷ Internal training workshops on risk management for financial managers and risk managers of the Corporation;
- ▷ Preparing risk managers for the national risk management certification and the European FERMA RIMAP certification (which is voluntary).

**OVERALL, SISTEMA'S INVESTMENT PORTFOLIO HAS A BALANCED PROFILE OF SOCIAL AND ENVIRONMENTAL RISKS.**

# Supply chain management and procurement

GRI 102-9  
GRI 103-2

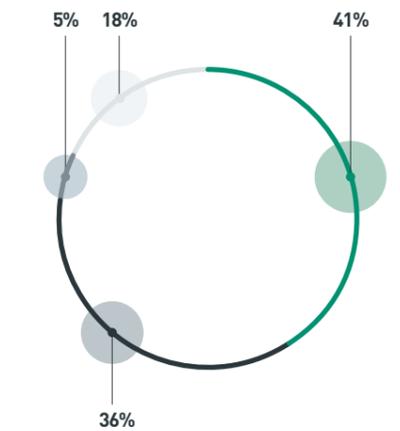
Effective management of procurement and relations with suppliers may significantly increase operating income and create added value for shareholders. Sistema Group is one of the major consumers of goods and services in Russia, making a considerable impact on the development of various markets. The Corporation aims to establish a professional, responsible and transparent system of procurement at its portfolio companies, contributing to the development of sustainable supply chains in a variety of industries.

Sistema's assets account for most of the purchases made by the Group in monetary terms.

The largest consumers among Sistema's portfolio companies in 2018 were MTS, Segezha Group, RTI, Detsky Mir, Leader Invest and BPGC, with their aggregate share accounting for over 81% of the Corporation's total purchasing in monetary terms.

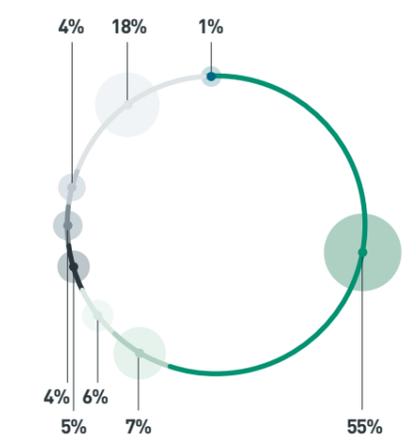
Sistema Group has more than 20,000 suppliers in total, most of them working with MTS, BPGC, RTI, Kronstadt Group and Segezha Group.

**MAIN CATEGORIES OF SERVICES PURCHASED BY THE CORPORATE CENTRE, %**



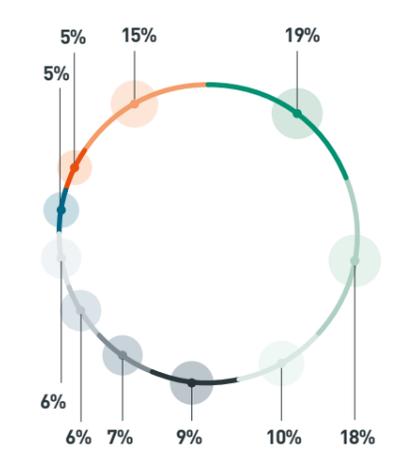
Administrative expenses
Consulting fees
Insurance
Other

**STRUCTURE OF PROCUREMENT AT SISTEMA GROUP, %**



MTS
Leader Invest
Segezha Group
RTI
Detsky Mir
BPGC
Other assets
Sistema

**BREAKDOWN OF SUPPLIERS OF SISTEMA GROUP COMPANIES IN 2018, %**



Segezha Group
RTI
Kronstadt Group
MTS
BPGC
RZ Agro Holding
Medsj
Detsky Mir
Concept Group
Other

**RUB241.4 bn**

**THE GROUP'S PROCUREMENT VOLUMES IN 2018**

**20+ K**

**SUPPLIERS**

Sistema cooperates only with reliable suppliers that comply with all the requirements of existing laws and the Code of Ethics of Sistema, including regulations in the area of zero tolerance to corruption, human rights, working conditions, etc. All new suppliers are subjected to a mandatory screening procedure to rule out, inter alia, a potential conflict of interest. By purchasing products and services from reliable Russian suppliers, the companies of the Group contribute to the development of domestic producers and Russia's regions, and by participating in national and global industry projects they help enhance the transparency and sustainability of supply chains in specific industries.

The responsibility of Sistema as an investment company lies in implementation of uniform standards and enhancement of the effectiveness of procurement activities, development of organisational potential and creation of synergies across the Group.

As part of an effort to improve business processes, Sistema dissolved procurement commissions in its subdivisions in 2018. Today, depending on the materiality level and product category, decisions on specific purchases are taken by either the person that initiated the purchase or by the collective procurement bodies in accordance with the Tenders and Procurement Code, which is currently the main regulatory document of Sistema in this area. The document sets out the main principles and approaches to the organisation of procurement processes that should be observed by all portfolio companies. In 2018, Sistema continued adapting the procurement regulations of portfolio companies to the uniform requirements of the Corporation, taking into account the industry specifics of each company. Concept Group, Mikron and Business Nedvizhimost approved new procurement codes, while RTI and Leader Invest updated and amended their existing codes.

In order to increase the efficiency of supply chain management in one of the most capital intensive business segments, Sistema drafted and adopted a separate regulatory document titled "Regulation on Procurement Procedures in Major Construction Projects", which outlines the particular features of the process and provides guidelines for holding procurement procedures to select contractors.

In 2018, MTS also developed and implemented a pilot business process "Procurement of innovations", setting out requirements to searching for new business solutions, testing hypotheses for startup products/technologies and developing innovative solutions through mentoring, training and expert support as part of the MTS Accelerator. MTS also developed and implemented a system for managing the risks of procurement related to intellectual property.

When organising its procurement activities, Sistema is guided by the principle of strategic management of procurement categories (category management), enabling it to achieve a significant economic effect while ensuring an optimum use of resources: centralised purchasing of similar goods and services in the interests of several companies.

For more detail on the principles of organising procurement see the **2017 Sustainability Report**, pages 70-71.

Development of organisational potential at portfolio companies and implementation of a functional strategy in the area of procurement enabled Sistema to significantly enhance the economic efficiency of its purchases. In 2018, the total savings from the Group's procurement procedures exceeded 8.1% on average compared to 7.6% in 2017, while the total economic effect amounted to RUB 19.6bn.

**8+%**

**AVERAGE ECONOMY FROM PROCUREMENT PROCEDURES ACROSS THE GROUP IN 2018**

**DISTRIBUTION OF RESPONSIBILITIES IN THE SUPPLY CHAIN**



MTS, which accounts for more than a half of the entire procurement volumes of the Group, expects its counterparties to comply with the social and environmental responsibility requirements set out in its Supplier Code of Conduct. Moreover, MTS is facilitating the implementation of principles of responsible business conduct on an international level, being the only Russian company to become a member of JAC (Joint Audit Cooperation)<sup>1</sup>. It is an association of telecom operators aiming to verify, assess and develop the Corporate Social Responsibility (CSR) implementation across the manufacturing centres of important multinational suppliers of the Information Communication Technology (ICT) industry. As part of this initiative, MTS has already carried out audits of four suppliers in five main areas of responsibility: working conditions, health and safety, environmental impact, ethical standards, governance systems. In 2019, the company is expected to conduct six more audits. Membership in JAC also enables MTS to study and replicate the best procurement practices of major international telecom and IT companies.

<sup>1</sup> jac-initiative.com

### IMPLEMENTATION OF THE CATEGORY MANAGEMENT PRINCIPLE: EXPERIENCE OF MEDSI AND BPGC



In June 2018, Medsi conducted a procurement procedure for the supply of a big batch of high-tech MRI equipment, the biggest order of this kind in the Russian market as of late. Three major global producers participated in the tender procedure for the purchase of eight units of medical equipment. The contract was finally awarded to Philips, which offered an unprecedented discount. Savings vs the initial purchasing price amounted to 12.5%.

A number of generics were added to Medsi's formulary – a list of drugs purchased by Medsi. This decision helped reduce prices for original drugs, which is consistent with the company's policy aimed at prioritising original drugs. The resulting savings on purchases compared to the previous year totalled 40%.



Sistema ensures the transparency and competitiveness of procurement procedures by using electronic trading platforms (ETPs). Sberbank AST (Sberbank Automated System of Trading) is the main ETP used by the companies of Sistema Group. In 2018, the share of procurement procedures conducted via ETPs, including Sistema Group's trading section on Sberbank AST platform and own trading modules of portfolio companies, remained high: about 70% on average across the Corporation. MTS, BPGC and Leader Invest are leaders in electronic procurement.



Car tyres is one of the key product categories purchased by BPGC. Due to having an extensive branch network in the Republic of Bashkortostan (72 offices in 62 localities), the company traditionally held a centralised procurement procedure to supply tyres for passenger cars and trucks. In 2018, an analysis showed that it was more feasible to hold separate procurement procedures for specific tyre categories. As a result of introduction of a new procurement procedure for tyres, the company managed to decrease the initially budgeted price by 26% for trucks and by 25% for passenger cars.

In order to achieve an additional economic effect and increase competition in the market of reinforced-concrete poles used in construction, renovation and modernisation of overhead power lines, it was decided to optimise logistical costs by offering the participants of the procurement procedure an opportunity to reschedule supplies to earlier dates. Moreover, an additional analysis of producers was performed, making it possible to increase the number of participants to three. The resulting economy from the procurement procedure was 11%.

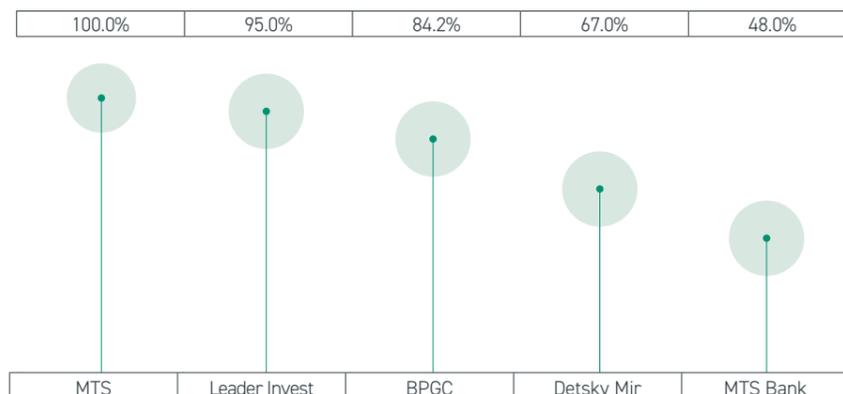
Sistema seeks to strengthen partnerships with its counterparties. In order to create an open, predictable and transparent business environment, the Corporation established a dispute resolution commission. Any counterparty, including potential counterparties, can contact the Dispute Resolution Commission by completing a form on the website, regardless of which Sistema Group company they work with or intend to work with. This communication channel enables all suppliers to get feedback on the organisation of procurement at the Group, increases the loyalty of suppliers and helps to significantly reduce potential financial and reputational risks in the supply chain. In 2018, the Dispute Resolution Commission received one complaint about a procurement procedure worth RUB 120m and passed a decision in favour of the applicant.

#### SISTEMA MADE IT TO THE

TOP 10

**COMPANIES WITH THE MOST FAIR AND TRANSPARENT AUCTIONS FOR THE SERVICES OF EVENT AGENCIES ACCORDING TO THE RUSSIAN EVENT MARKETING ASSOCIATION (REMA)**

#### LEADERS IN E-PROCUREMENT AT SISTEMA GROUP IN 2018, %



### LEADERS OF DIGITALISATION IN PROCUREMENT

Sistema is improving the process of procurement and supply chain management at its portfolio companies by using information technologies.



In 2018, **Steppe AgroHolding** closed the first digital transaction in the Russian agricultural market, resulting in the acquisition of 300 tonnes of wheat on a specialised online trading platform called "Smartseeds". Digitalisation of trading operations, establishment of a reliable and transparent system for analysing proposals, signing and fulfilling contracts through the use of, inter alia, decentralised registers and smart contracts, help make the markets more predictable, reduce costs and create an efficient system for financing the industry. It is expected that "Smartseeds" will become one of the channels used by Steppe AgroHolding for acquiring third-party grain for subsequent export as part of its agro-trading strategy. The company intends to increase the share of digital transactions in its trading turnover.

In the reporting period, Steppe AgroHolding also introduced a Supplier Account, making the process of interaction with counterparties during procurement procedures more formalised. The company is consistently pursuing its strategy aimed at automating the entire procurement system (from planning demand to getting orders) and migrating to smart contracts. Although successful

implementation of the system greatly depends on the counterparties, Steppe AgroHolding aims to make sure that the share of smart contracts by the end of 2019 reaches 15-20%. Moreover, the processes of supplier accreditation and assessment will be automated by using a new procurement module for 1C software. Such processes as notification of the launch of procurement procedures, determining contract winner, approving contract terms and order placement will also become automated. Automation of these processes will make it possible to significantly decrease the labour intensity of procurement procedures and enhance the productivity of human resources.



**MTS** is one of the recognised leaders of digitalisation in procurement. In 2018, the company introduced Oracle Sourcing, a module of the IT system which makes it possible to perform 100% of procurement procedures electronically and thus fully automate the process of supplier selection. It also enables the company to conduct electronic trading on its own trading platform. Over the last three years, the company has significantly re-engineered its process related to handling unsold goods (mobile phones, network equipment, office appliances, cars, furniture etc) by automating it via the Oracle ERP system and launching its own MTS Trading marketplace for secondary sales of goods and products to third parties.

The new online service enables legal entities and sole traders to use MTS's e-trading platform for selling unsold or written-off items on transparent terms and within tight deadlines through electronic auctions. Using the broad geographic footprint of its business, MTS aims to transform its e-trading platform into a specialised marketplace operating on a national scale and selling a wide range of products (mostly telecom and IT equipment).

~RUB600 m

**OF REVENUE WAS GENERATED BY MTS'S E-TRADING PLATFORM IN 2018**



In November 2018, **Segezha Group** launched an IT system for automating its procurement function. This system automates the processes of planning, organising and holding procurement procedures, managing warehouse operations, supervising the efficiency of supplies and other procurement processes.

#### PLANS FOR DEVELOPMENT OF THE PROCUREMENT SYSTEM IN 2019

In 2019, Sistema focused on developing the following areas of procurement:

- ▷ Expansion of categories for strategic management and their further replication in other companies of the Group;
- ▷ Improvement of the system of independent industry-specific controls for the assets in order to increase their operating efficiency;

- ▷ Introduction of amendments to the Tender Procedures and Procurement Code to adapt it to the new organisational structure and improved business processes;
- ▷ Holding centralised procurement procedures for purchasing voluntary medical insurance services in the interests of the companies of Sistema Group.

The Corporation is also aiming to further increase the share of purchases made through ETPs, enhance the level of automation and digitalisation of procurement procedures, making it possible to increase transparency, ensure equal access and uniform rules for potential suppliers.

# HR management

GRI 102-8  
GRI 103-2

0.15%

OF THE TOTAL WORKFORCE OF RUSSIA IS EMPLOYED BY SISTEMA GROUP

44+ K people

WERE HIRED BY SISTEMA GROUP IN 2018



“Transition to an investment company model made it necessary to change business processes and ensure that senior managers and key employees possess new competences. The role of the HR function in Sistema's transformation is, first of all, to build effective interaction between the corporate centre and portfolio companies. The HR Department of Sistema is acting as a senior business partner for the HR units of portfolio companies: it determines the methodology and general operational principles and also performs standard tasks related to ensuring a transparent recruitment process, implementing an adequate incentive scheme and facilitating the organisational development of the Corporation.

**SVETLANA MATVEYEVA**  
Vice President for HR, Sistema PJSC

Human capital is the most important success factor of the Corporation with its key values being professionalism, high level of responsibility, engagement and ethical conduct. The HR policy of Sistema is aimed at attracting and retaining the best managers and industry professionals through continuous improvement of employment terms, creation of safe and comfortable working conditions, providing career growth opportunities, and ensuring good standards of living and social welfare for the employees of all portfolio companies.

Sistema's key goals in the area of HR include ensuring sustainable growth of productivity, maintaining a balance of interests of employees and the employer, and effectively using the professional and managerial potential of the employees in accordance with the long-term development strategy of the Corporation.

As a responsible employer, Sistema strictly follows all the requirements of the labour law of Russia and other countries where the Corporation operates. In its relations with personnel the Corporation follows the basic principles of the International Labour Organisation, the United Nations Guiding Principles on Human Rights and best practices in HR, and expects its portfolio companies to observe the same principles. Sistema guarantees its employees freedom of association and the right to collective bargaining, training and development, competitive remuneration, occupational health and safety. Having teams in various regions and industries, Sistema ensures diversity of human capital and helps unlock the professional and personal potential of its employees, and creates opportunities for professional growth and career development.

## STAFF

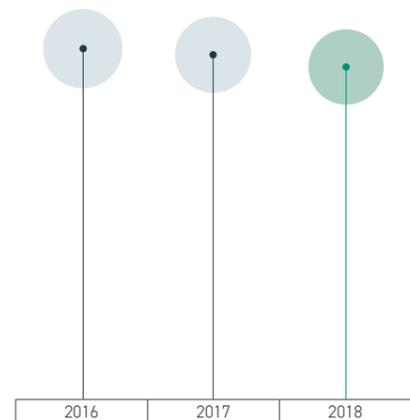
Sistema is making a contribution to employment in Russia by creating jobs in various regions, including rural areas and company towns, and has zero tolerance to illegal labour practices, such as child and forced labour. In 2018, Sistema Group employed about 139 thousand people in different regions of Russia and abroad.

Labour productivity remains quite high. In 2018, it was RUB 5.6m per employee a year across the Group, almost a 25% increase from 2017.

An absolute majority of Sistema Group's employees (94%) work under fixed-term employment agreements as full-time employees.

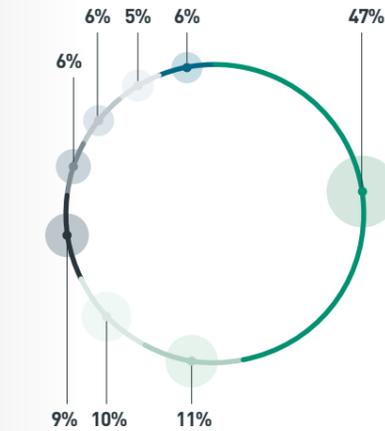
## HEADCOUNT AT SISTEMA GROUP, PEOPLE

144,362	142,781	138,892
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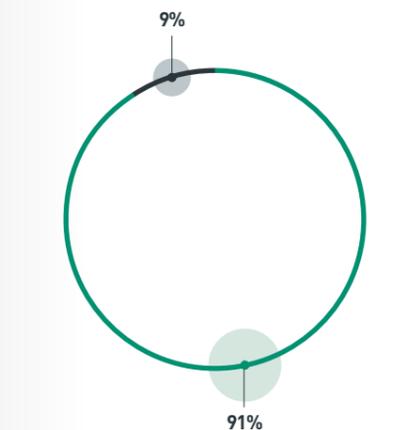
GRI 102-7  
GRI 102-8  
GRI 103-2

## HEADCOUNT BROKEN DOWN BY ASSETS, %



MTS
Detsky Mir
RTI
Segezha Group
Medsi
BPGC
Agriculture assets
Other

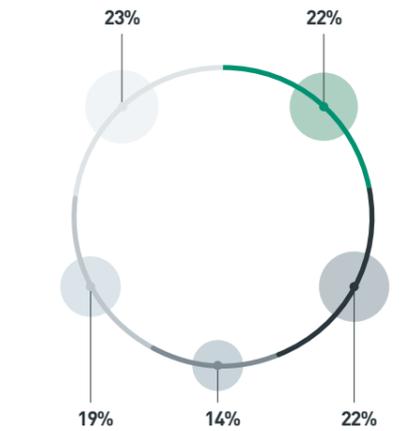
## RATIO OF FULL-TIME AND PART-TIME EMPLOYEES AT SISTEMA GROUP IN 2018, %



Full-time
Part-time

The Corporation aims to ensure a gender balance and has zero tolerance to discrimination. Appointments to senior positions do not depend on gender, age, nationality and other characteristics unrelated to the professional qualities of employees.

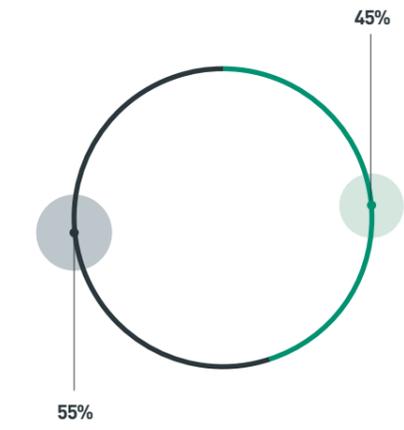
## WORK EXPERIENCE OF SISTEMA GROUP EMPLOYEES, %



Up to 1 year
1-3 years
3-5 years
5-10 years
More than 10 years

GRI 401-1

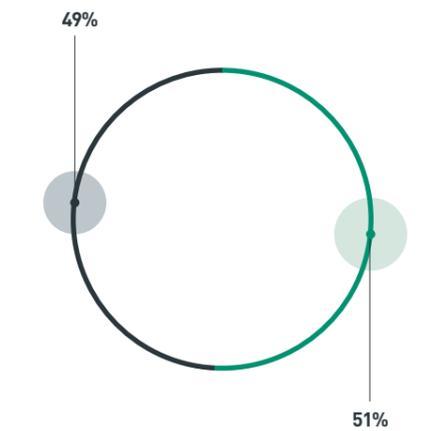
## GENDER DISTRIBUTION OF EMPLOYEES RECRUITED BY THE GROUP IN 2018, %



Males
Females

Sistema's headcount is quite balanced in terms of experience: the number of young professionals is almost equal to that of experienced staff. 42% of employees have worked for the companies of the Group for 5 or more years.

## GENDER DISTRIBUTION OF THE GROUP'S EMPLOYEES IN 2018, %



Males
Females

~50 K

## NEW EMPLOYEES ARE ANNUALLY EMPLOYED BY THE GROUP

The Corporation offers unique career opportunities in various business segments and is an attractive employer for young people. Employees aged under 35 make up 66% of the Corporation's workforce. About one third out of the 44.4 thousand employees hired by Sistema Group in 2018 are under 25.

**EQUAL EMPLOYMENT OPPORTUNITIES FOR CANDIDATES OF ALL AGES: EXPERIENCE OF MTS GROUP**

In 2017, MTS launched a social HR project "MTS is a company for all ages" aiming to recruit, adapt and retain middle-aged employees and develop communications for the diverse age groups of employees and customers. The project is aimed at people aged 40+ and aims to solve two key tasks: hiring and adapting mature employees, and improving the quality of service for elderly customers. The project involves employees of different ages from various departments of the company, as well as employment centres in 12 regions of Russia. Within the framework of the project, educational workshops are held for both potential applicants and existing employees. In order to promote the project, the company launched a social advertising campaign called "Looking for a job?", which showed employees of MTS's retail chain and call centres older than 40.

As a result of the programme, the vacancy filling rate increased (including thanks to the candidates recruited through the employment centres), the churn rate among employees aged 40+ decreased, and the level of satisfaction of elderly customers increased in 2018. The project "MTS is a company for all ages" was recognised as one of the "Best Social Projects in Russia" in the category "Corporate Projects".

In 2018, MTS Bank launched Digital Generation, a pilot programme aiming to attract young IT specialists. It provides training and internships with further employment opportunities: it is a nice start for programmers, developers, testers and analysts.

The average personnel turnover in Sistema's portfolio companies in the reporting period was 18% net of the retail and hotel businesses, which traditionally have higher turnover rates compared to other industries. At the same time, the composition of top, middle and junior management teams at Detsky Mir, Concept Group and Cosmos Hotel Group remains stable: the average turnover of senior managers has stayed at a low 2-3% over the last several years.

An increase in personnel turnover recorded in the reporting period across the Group (with a downward trend in a 3-year period) and at Sistema is mostly related to the reorganisation processes that took place at the Corporation and some of its assets in 2018. However, the average turnover rate for all categories of management at the companies of the Group has decreased from 1.6% to 1.5%, which is an important testament to the efficiency of human capital management at Sistema as an investment company.

In accordance with the best practices of investment funds the Corporate Centre has become more compact: in 2018 the headcount of Sistema was approximately 290 people. Despite the nominal growth of personnel turnover resulting from reorganisation, the actual level of "natural" turnover (factoring in the intra-group transfers) decreased by 1.2 p.p. compared to the previous year and reached 7.2%. More than 30% of all employees dismissed from Sistema were recruited by the portfolio companies of the Group as part of its succession planning programme. At the same time, 11 senior managers from portfolio companies were transferred to the Corporate Centre, which confirms the effectiveness of Sistema's policy aimed at increasing the potential of human resources and rotating senior staff within the Corporation.

**AVERAGE ACTIVE STAFF TURNOVER AT SISTEMA'S PORTFOLIO COMPANIES, %<sup>1</sup>**



**STAFF TURNOVER AT SISTEMA, %<sup>2</sup>**



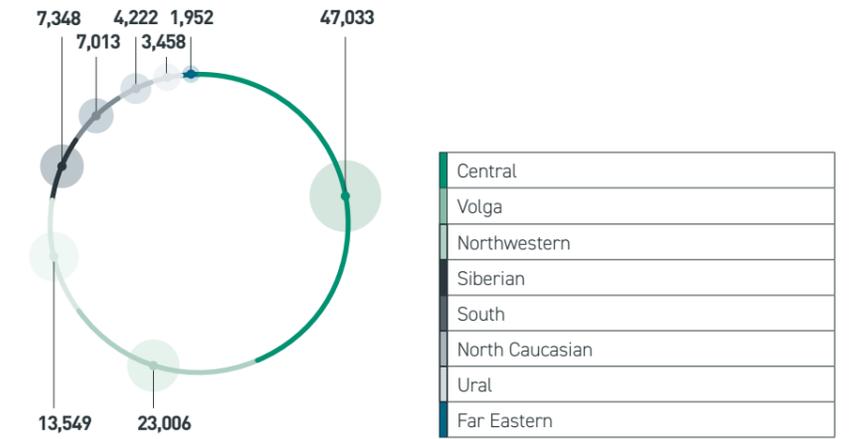
**AVERAGE TURNOVER OF MANAGEMENT AT SISTEMA GROUP, %<sup>3</sup>**



<sup>1</sup> General turnover of staff.  
<sup>2</sup> Voluntary turnover of staff.  
<sup>3</sup> Employees that terminated employment of their own accord.

The Corporation is making a significant impact on the labour market in various regions of Russia. With operations in all federal districts of the Russian Federation, Sistema Group recruits employees mostly from the local communities and hires specialists from other regions only if it is impossible to find people with relevant competences in the local market. Sistema also implements training programmes to enhance the qualifications of local employees in areas of presence.

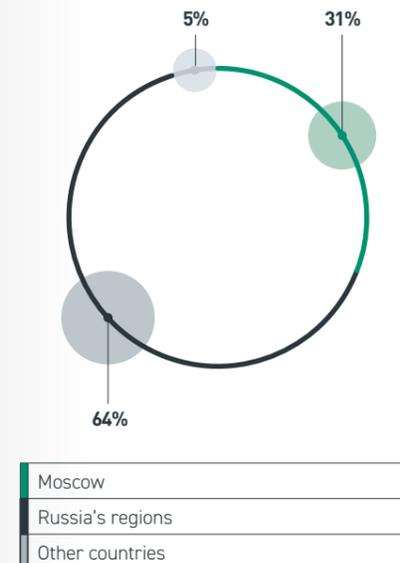
**STAFF EMPLOYED BY THE GROUP'S PORTFOLIO COMPANIES BROKEN DOWN BY FEDERAL DISTRICTS OF RUSSIA, %**



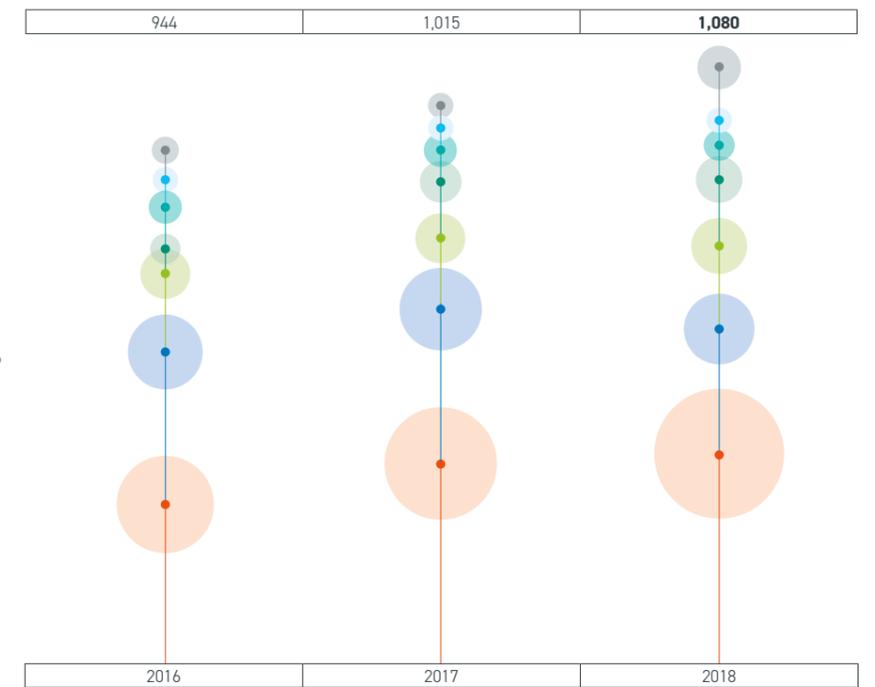
1,000+

**PEOPLE WITH DISABILITIES WORK FOR THE COMPANIES OF SISTEMA GROUP**

**DISTRIBUTION OF THE GROUP'S FULL-TIME EMPLOYEES BY REGIONS, %**



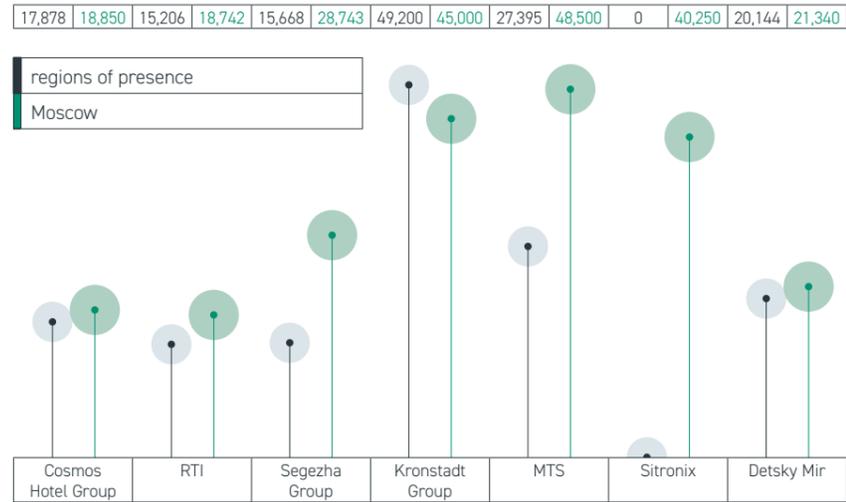
**TOTAL NUMBER OF EMPLOYEES WITH DISABILITIES, PEOPLE ▲ 14.4%**



	2016	2017	2018
MTS	367	439	450
RTI	243	257	206
Agriculture assets	136	109	133
Medsi	38	97	111
BPGC	70	46	59
Segezha Group	42	34	41
Other	48	33	80

Sistema's portfolio companies are actively cooperating with employment centres: participating in job fairs for disabled people, providing data on new vacancies to the employment quotas department, posting vacancies on generally accessible websites, and working with employment centres for job applicants with disabilities. The companies of the Group are also cooperating with the organisations that assist in social adaptation of disabled people, forming a barrier-free environment at their production facilities and offices. In addition to creating jobs, they also allocate parking space for employees with special needs. Some offices (for example, MTS and Kronstadt Group in St. Petersburg) are equipped with a help button for employees with limited mobility.

**MINIMUM WAGE OF JUNIOR EMPLOYEES, RUB**



**GRI 103-3 INCENTIVES AND REMUNERATION**

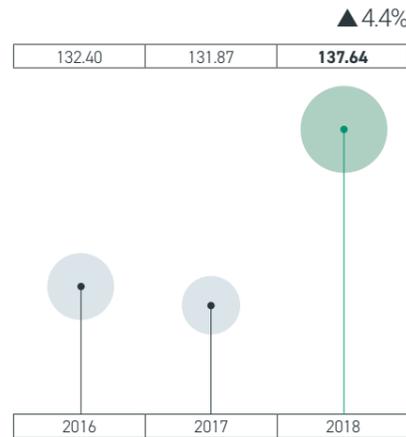
GRI 202-1

The remuneration and incentive system of the Corporation aims to maintain a competitive level of pay for all categories of employees both region- and industry-wise. The remuneration and incentives of Sistema's employees and portfolio companies' management are linked to the general investment strategy and are constantly revised in view of the updated business goals.

The average minimum wage paid to employees in junior positions across Sistema Group is about RUB 23,000, which is twice the minimum wage set by the Russian government,<sup>1</sup> and in some portfolio companies the difference is 4-5 times (Kronstadt Group, Binnopharm).

The remuneration principles and procedures are set out in the relevant internal regulations of the Corporation. The remuneration system of Sistema and most of its portfolio companies is based on a system of grades (job levels).

**THE GROUP SPENDINGS ON WAGES AND REMUNERATION, RUB BN**



**RUB400+ bn**

**HAS BEEN ALLOCATED BY SISTEMA GROUP FOR REMUNERATION AND COMPENSATION PAYMENTS OVER THREE YEARS**

**TOP MANAGEMENT INCENTIVE PROGRAMME**

GRI 102-35

In 2018, Sistema developed and adopted a new four-year option plan for the top management aimed at aligning the goals of Sistema's shareholders and senior management. The employees covered by this incentive scheme are entitled to get a share from an increase in Sistema's market capitalisation in the form of ordinary shares. The option plan is meant to develop and support a partnership mechanism, with Sistema's key managers becoming its minority shareholders. No expenses were made as part of the option plan in the reporting period due to the increased debt burden of the Corporation resulting from the settlement agreement. However, Sistema's key performance indicators in 2018 and the first half of 2019 improved, making it possible to resume the management incentive scheme.

At the same time, Sistema started implementing long-term partnership programmes for the CEOs of portfolio companies. The programmes provide for gradual allocation of equity stakes in the assets under management to relevant CEOs, making them more motivated to focus on long-term goals, maximise equity value, and monetise the Corporation's investments. In 2018, such incentive schemes were also adopted at Medsi and Segezha Group.

**GRI 401-2 NON-FINANCIAL INCENTIVES**

The system of non-financial incentives at Sistema Group, which includes programmes for recognition of employees' achievements, social support and opportunities to take part in volunteer projects, is aimed at increasing the employees' motivation to develop their professional skills, achieve the targets set by the company and demonstrate better overall performance. The incentive schemes of Sistema and its portfolio companies are designed to increase the level of employee responsibility and engagement, improve the quality of work, efficiency and productivity, create favourable conditions for generating innovative ideas and unlocking human potential.

In addition to statutory social benefits, Sistema also offers its employees an extended social package including voluntary health insurance, sick leave payments above the minimum established by the government and financial aid for people in difficult circumstances. The social package available at some portfolio companies includes life insurance, health resort packages at reduced prices, free meals, partial compensation of rent payments for employees from other cities, etc. The exact set of additional benefits depends on the industry specifics and the needs of employees at relevant portfolio companies.

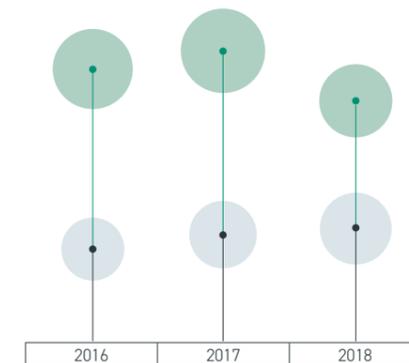
In some cases such additional terms are included in collective agreements. Moreover, the Corporation's employees have an opportunity to use the services offered by the Group companies on special terms, including banking services, discounts for children's goods, residential properties, hotel accommodation, and additional medical services that are not covered by insurance.

**IN 2018, 50+ companies**

**OF SISTEMA GROUP JOINED THE CORPORATION'S VOLUNTARY HEALTH INSURANCE PROGRAMME. THE TOTAL NUMBER OF INSURED PERSONS UNDER THE PROGRAMME WAS AMOUNTED TO 4,410.**

**SPENDING OF THE GROUP ON VOLUNTARY MEDICAL INSURANCE AND SOCIAL PACKAGES FOR EMPLOYEES, RUB M**

1,304	1,368	1,231
437	867	468
867	900	488
468	743	743



Social benefits
VMI

**RECOGNITION OF THE BEST EMPLOYEES**

Sistema traditionally awards its best employees at a New Year party. In 2018, 21 employees were awarded appreciation certificates, 19 employees received silver badge awards and 4 best employees were given gold badges, the highest award of the Corporation.



“*One of the features that sets Sistema apart from other companies is that there are no barriers for people who want to build their careers. It goes without saying, that you should be competent, and if you lack some necessary skills you can acquire them here. One needs to be proud of being an employee of the Corporation, try to perform to the best of one's ability and not to be shy to stand out. The company is very transparent and open to new initiatives.*”

**ALI UZDENOV**  
Managing Partner, winner of the Gold Badge Award of Sistema PJSFC in 2018

**~RUB4 bn**

**WAS ALLOCATED BY THE CORPORATION FOR SOCIAL SUPPORT AND MEDICAL INSURANCE OF EMPLOYEES IN 2016-2018**

**+11.7%**

**GROWTH OF INVESTMENTS IN SOCIAL SUPPORT FOR EMPLOYEES SINCE 2016**

<sup>1</sup> From 1 May 2018 the national minimum wage in Russia is RUB 11,163.  
<sup>2</sup> For more detail see Sistema's **Annual Report for 2018**, page 103.

### FINANCIAL AND NON-FINANCIAL INCENTIVES FOR PERSONNEL AT RTI

In 2011, RTI introduced a motivation system to reward employees for outstanding performance. This system includes:

- ▷ commendations for outstanding performance;
- ▷ official letters of appreciation from senior management;
- ▷ certificates of inclusion in honours boards;
- ▷ individual badge of honour for outstanding achievements and a significant contribution to the company's results;
- ▷ payment of a one-off bonus for outstanding achievements.

From 2010 to 2018, the best employees received more than 100 certificates of inclusion in honours boards, which is more than 7% of the average headcount.

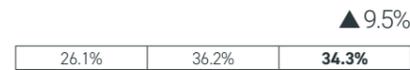
In 2018, the company started implementation of a bonus scheme tied to key performance indicators. The aim of the scheme is to incentivise employees and to increase productivity.

Collective agreements were signed with 47,614 employees of the Corporation, which accounts for 34.3% of the total headcount. Over the past three years the share of employees covered by collective agreements increased by 8.2 p.p.

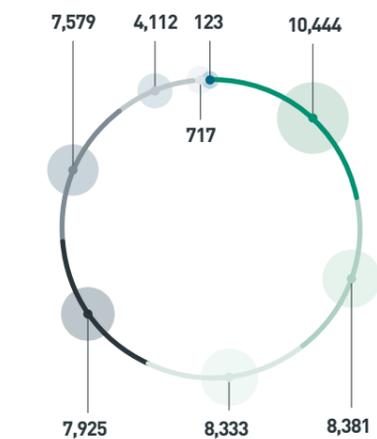
34.3%

### OF THE TOTAL HEADCOUNT OF SISTEMA GROUP WAS COVERED BY COLLECTIVE AGREEMENTS IN 2018

### SHARE OF EMPLOYEES COVERED BY COLLECTIVE AGREEMENTS, %



### NUMBER OF THE CORPORATION'S EMPLOYEES COVERED BY COLLECTIVE AGREEMENTS IN 2018, PEOPLE



RTI
MTS Group
MGTS
BPGC
Segezha Group
Steppe AgroHolding
Cosmos Group
RZ Agro Holding

### COLLECTIVE AGREEMENTS

Sistema is paying a lot of attention to the well-being of its employees and is building its relations with personnel on the basis of social partnership implying not only compliance with existing laws and regulations by all parties, but also equality, mutual respect and consideration for the interests of both employees and employers. At some companies of the Group the terms of social partnership are set out in collective agreements that provide for employee benefits and compensations that go beyond the statutory requirements, including voluntary health insurance, pensions, additional paid leaves, increased payments for sick leaves, etc.

### NEW COLLECTIVE AGREEMENTS

In 2018, several portfolio companies of Sistema Group signed new agreements.

In December, **BPGC** and the regional office of the non-profit association Russian Union of Employees of Power Companies in the Republic of Bashkortostan, which unites more than 18 thousand employees, signed a collective agreement and an industry tariff agreement for 2019-2021. The documents regulate the social and employment relations and mutual undertakings between the employer and the employees and include a number of changes and amendments. These amendments are primarily aimed at safeguarding the interests of employees,

improving their working conditions and life-work balance, providing benefits, guarantees and compensations.

All the collective agreements currently in place at six key production facilities of **Segezha Group** were extended until the end of 2020. In addition to the old set of guarantees and compensations, the agreements provide for new benefits. In particular, the agreements now include new provisions on granting financial aid to large families with children that go to school for the first time, set out a fixed amount of financial aid payable to parents on the birth of a child; the company also compensates 100% of the cost of New Year presents for the children of employees.

### TRAINING AND PROFESSIONAL DEVELOPMENT OF EMPLOYEES

Human capital is an important asset of Sistema PJSFC, which ensures the efficiency and internal stability of its business. Therefore, one of the main priorities of the Corporation is personnel training and development. Sistema gives a lot of attention to the development of necessary business, professional and soft skills of its employees and aims to form a corporate culture of responsibility and focus on results.

In 2018, the Corporation introduced Knowledge Days as the main format of internal training. Knowledge Days are brief master classes on relevant corporate topics (team management, emotional intellect, time management, etc). Knowledge Days have a convenient format of lectures that last 2-3 hours and take place at the start or at the end of a working day.

In 2018, the Group held more than 3.7 thousand different training programmes and educational projects for employees, including various forms of traditional and distance learning courses:

- ▷ workshops, lectures and training sessions;
- ▷ distance learning courses (video courses and webinars);
- ▷ discussion clubs;
- ▷ programmes of continuous professional development and training.

The Corporation's investments in personnel training and development in 2018 amounted to almost RUB 390m, a 13.4% increase from last year. Most of the expenses (64%) are allocated for training grass-roots employees, the core of the HR pool of Sistema Group.

1.3 m hours

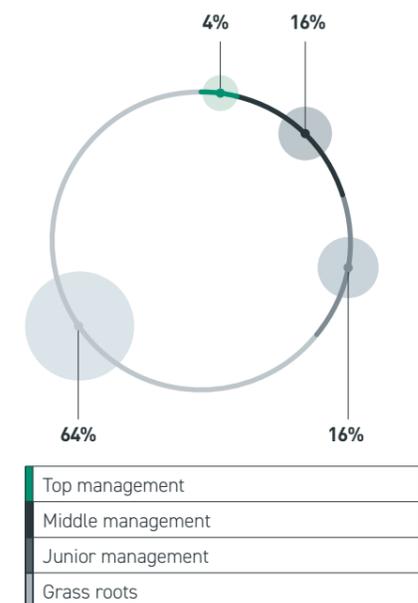
### WERE SPENT ON PERSONNEL TRAINING AND DEVELOPMENT

Application of various educational formats and methodologies helps to attract more employees to training programmes. In 2018, the number of employees that attended at least one training session increased by 10% and reached 62.8 thousand people. The total number of training hours across the Group also increased and exceeded 1.3m hours.

### SISTEMA GROUP'S EXPENSES ON PERONNEL TRAINING, RUB M



### THE GROUP'S EXPENSES ON TRAINING IN 2018 BY PERSONNEL CATEGORY, %



At the end of 2018, Sistema jointly with Alpina Publisher launched a corporate online library that is accessible from mobile phones and includes more than 1,800 books on management, marketing, leaderships, personal efficiency, etc.

### SPECIALISED TRAINING AT MEDSI



In 2017, Medsi launched its own Medical Academy to train doctors, nurses, and paramedics. In 2018, the Medical Academy had 9 medical departments. Training is conducted with the help of modern interactive and distance learning platforms and electronic reference materials. The training courses are conducted by a highly qualified team of professors and teachers that have vast clinical experience with Medsi Group and leading medical and research organisations.

For more details see ["Sustainable development practices of portfolio companies"](#)

RUB1+ bn

### WAS INVESTED BY THE COMPANIES OF THE CORPORATION IN TRAINING AND DEVELOPMENT IN 2016-2018

**BUILDING A MANAGEMENT TEAM**

Sistema places a lot of emphasis on the qualifications of its senior managers, since the performance of the Corporation and its portfolio companies in many respects depends on the professionalism of management teams. The main objectives of the HR policy in this area include building efficient and highly qualified top management teams and ensuring continuous improvement of the recruitment, appointment and development processes.

Different subdivisions, assets and funds of Sistema have their own HR needs depending on their specific tasks and objectives. The recruiting teams of the Corporation have to perform both standard recruitment tasks and search for candidates for senior positions with specific requirements. Sistema has a comprehensive procedure for selecting and recruiting candidates for senior positions and an effective model of competences for the top management of portfolio companies. Such candidates are selected by an in-house recruitment team, enabling it to accumulate valuable expertise and save significant amounts of funds by doing without the services of executive search companies. The core of the management succession pool is formed primarily by internal resources, which ensures continuity based on the experience and good knowledge of the Corporation's business. Sistema is widely using the mechanism of rotation of senior managers to portfolio companies.

Own succession pools were created in the following companies of the Group: MTS, Detsky Mir, Segezha Group, RTI, Cosmos Group, BPGC.

~40%

**OF EMPLOYEES INCLUDED IN THE SUCCESSION POOL RECEIVED A PROMOTION AT SISTEMA GROUP IN 2018**

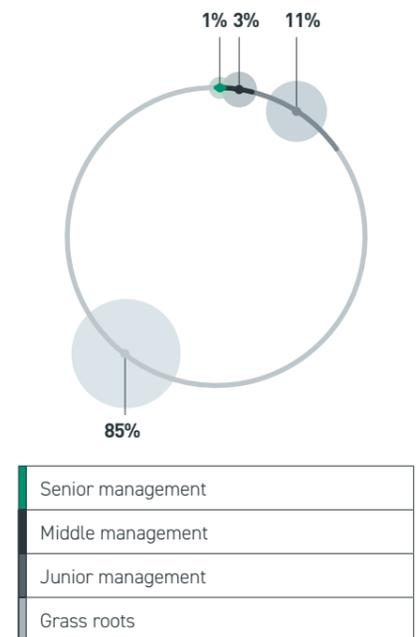
**SISTEMA'S SUCCESSION POOL IN 2018**

	Number of Sistema Group's employees included in succession pool at the start of 2018	Number of succession pool participants promoted in the reporting period, persons	Share of succession pool participants that received a promotion, %
Senior management	25	21	84%
Middle management	285	89	26%
Junior management	1,188	465	38%
Grass roots	815	262	40%
<b>Total</b>	<b>2,313</b>	<b>837</b>	<b>36%</b>

At the end of 2018, the succession pool of the Corporation included 2,313 people (1.1% of the total headcount). More than a third of the total number of succession pool employees received a promotion in 2018.

One of the key tools for building a succession pool is assessment of personnel that takes place regularly since 2016. Assessment is also conducted on a regular basis at portfolio companies. In 2018, assessment was performed for 40,814 employees of the Group, almost double the number assessed in 2017. MTS became a leader among Sistema's portfolio companies by the number of assessed personnel (75%). The assessment made it possible to identify the training and career development needs of successors in senior, middle and junior management positions.

**EMPLOYEES OF SISTEMA GROUP COVERED BY ASSESSMENT BY CATEGORY, %**



**GROWTH OF NUMBER OF EMPLOYEES COVERED BY ASSESSMENT**

2-fold

**GRI 403-4 GRI 103-2 GRI 403-1 HEALTH AND SAFETY IN THE WORKPLACE**

Ensuring comfortable and safe working conditions is a priority of Sistema Group, especially as far as production assets are concerned. The portfolio companies of the Corporation annually update their goals in the area of occupational health and safety and conduct special assessments in order to achieve improvements. Compliance with workplace safety rules in the Group is regulated by internal documents and collective agreements that take into account the industry specifics of assets.

The company conducts regular preventive and other occupational safety activities to decrease the risk of occupational diseases, injuries and improve occupational safety. The total spending of Sistema Group on these purposes in 2018 amounted to RUB 595.6m, or about RUB 4.3 thousand per employee, which is the same level as last year.

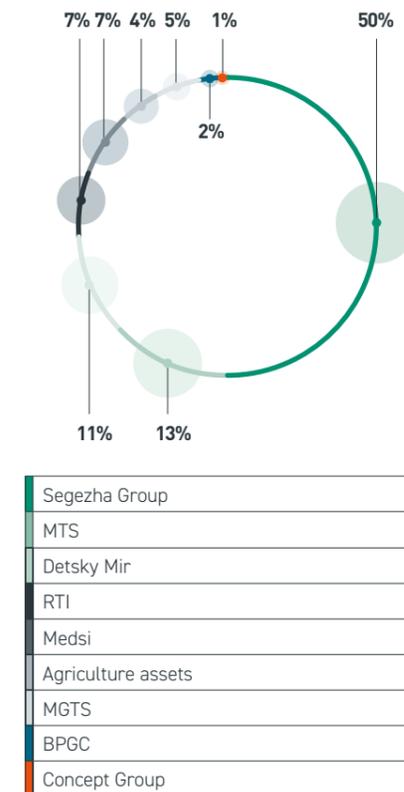
**SPENDING OF SISTEMA GROUP COMPANIES ON OCCUPATIONAL HEALTH AND SAFETY, RUB M**



1.7+ bn

**HAS BEEN SPENT ON OCCUPATIONAL HEALTH AND SAFETY SINCE 2016. EVERY YEAR THE COMPANIES OF THE GROUP SPEND MORE THAN RUB 500M ON OCCUPATIONAL HEALTH AND SAFETY**

**ACCIDENTS BY PORTFOLIO COMPANY, %**



In the reporting period, there were no cases of occupational diseases at the enterprises of Sistema Group, with the exception of isolated incidents at Segezha Group<sup>1</sup>. In total, there were 110 workplace accidents at the production facilities of the Group. The majority of incidents did not have any serious consequences, only 2 accidents were fatal. Half of the incidents took place in the timber processing assets, which is due to the specific hazards of the industry. At the same time, the total number of accidents at Segezha Group decreased by 2% in 2018 and in three years the reduction amounted to almost 13%. Due to implementation of systematic measures in the area of occupational safety, two more companies managed to achieve a significant reduction in the number of accidents: BPGC (reduction by 60%) and Concept Group (reduction by 50%).

**CORPORATE CULTURE AND VOLUNTEER WORK**

One of Sistema's priorities is the quality of corporate culture with the main corporate values being efficiency, responsibility, integrity, team spirit and helpfulness. The Corporation also promotes a healthy life style and commitment to making the lives of people better and helping those in need.

In 2017, Sistema diagnosed its corporate culture using a Harvard methodology. The assessment showed that the Corporation is mostly focused on achievements and professionalism and the employees are driven by results. The corporate culture and values of the Corporation were used for developing a uniform model of competences and behavioural patterns for conducting personnel assessment (a 360-degree method). The results of assessments show that the basic values of Sistema's corporate culture are mostly consistent with the best practices of investment companies. At the same time, benchmarking against major industry players made it possible to identify the characteristics (development areas) that may increase the efficiency of the Corporation in the long term: continuous training and search for creative solutions, enhancement of entrepreneurial initiative and support of innovations. To ensure that employees better understand the strategic goals, objectives and priorities of relevant businesses, the CEOs of portfolio companies were advised to hold regular and honest discussions with their teams, which is one of the most important success factors.

At the end of 2018, Sistema organised a family day in its office for the first time. The event was attended by about 100 children aged 3-12, who came to the office together with their parents and senior relatives.

<sup>1</sup> The rate of occupational morbidity at Segezha Group was 0.6%

**SISTEMA'S BASIC VALUES AND BEST PRACTICES OF THE INVESTMENT MARKET:**

**Basic values of Sistema:**

- ▷ focus on results,
  - ▷ playing by the rules;
- are:**
- ▷ Key values for everyone,
  - ▷ Shared by the personnel,
  - ▷ Basis of top management's style.

**Areas to be improved at Group level:**

- ▷ Improving two-way communications with personnel (CEOs holding regular meetings with succession pool employees, creating a common platform for registering and implementing "bottom-up" initiatives).
- ▷ Stimulating creativity at all personnel levels (horizontal rotation, inter-functional teams, etc).

**THE COMPANY AIMS TO:**

- ▷ set up well-functioning internal communications that will remove barriers between levels of management and increase the engagement of employees;
- ▷ encourage training and development initiatives and create a more relaxed atmosphere enabling employees to fully unlock their creative potential.

**Areas of interaction with personnel:**

- ▷ organising meetings of top management with employees;
- ▷ employees' awareness of the company's strategy;

**Impact of performed activities on the engagement survey results:<sup>1</sup>**

**1. TOP MANAGERS DEMONSTRATE THAT THE EMPLOYEES FORM THE FOUNDATION OF THE COMPANY'S SUCCESS:**



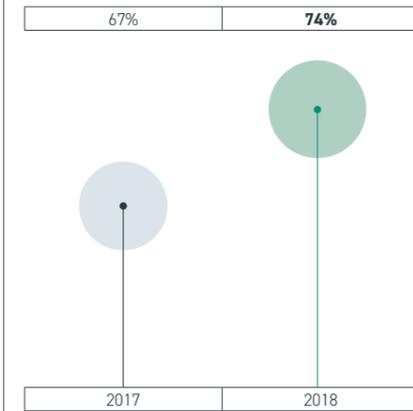
**2. TOP MANAGERS ARE COMPETENT AND TAKE CORRECT DECISIONS:**



**3. AWARENESS ABOUT THE GOALS AND OBJECTIVES OF THE COMPANY FOR THE NEXT SEVERAL YEARS:**



**4. THE COMPANY HAS GREAT DEVELOPMENT PROSPECTS FOR THE NEXT FIVE YEARS:**



Examples of successful actions performed in the companies of the Group that helped enhance the general level of employee engagement by **14%** in 2018.

<sup>1</sup> The data used in the examples was taken from the survey findings of MTS Bank and Detsky Mir

The Corporation encourages proactive attitudes of its employees, their self-development initiatives and willingness to acquire necessary social and other skills. Another important element of corporate cultures at the production facilities of the Group is participation of employees in professional skills competitions.

Sistema supports corporate sports and implements a big number of social projects spanning all critically important areas: health, creativity, culture and environment. The employees of the Corporation are involved in volunteer and charitable projects, which are mostly focused on supporting underprivileged children, large families, veterans, and disabled people.

Sistema believes that corporate volunteering is an effective tool for development of soft skills, socialisation, enhancement of personnel motivation and engagement. The volunteer projects of the Corporation are coordinated by Sistema Charitable Foundation (SCF) uniting the efforts of volunteers from 20 companies of the Group. Every year SCF organises about 35 volunteer events that regularly involve about 500 people, the core volunteer team of the Corporation. In three years volunteers worked for almost 8 thousand hours without compensation as part of social projects, in addition to the personal donations of employees. During the entire history of Sistema's volunteer movement the personal contributions of Sistema's employees and their participation in charity projects became an important part of corporate culture.

**IN 2018, THE EMPLOYEES OF SISTEMA GROUP TOOK PART IN**

**782**

**SOCIAL AND CHARITABLE CAMPAIGNS**

**MGTS's healthy lifestyle club.** Moscow City Telephone Network, a part of MTS Group, won the annual contest of corporate projects People Investor organised by the Managers' Association. MGTS's healthy lifestyle club became a winner in the category "Healthy lifestyle" for effectively handling corporate and social issues.

The project was launched as a tool for forming and promoting a new corporate culture as part of the company's transformation. It is a comprehensive tool for creating a new image of an effective employee through individual achievement of specific results. The programme includes master classes and check-ups performed by doctors from Medsi clinics, a healthy diet group, a yoga club and a jogging club "MGTS energy". A theme community was created on a corporate web portal enabling employees to share their achievements. In one year about 1,500 employees were attracted to different formats of the programme.

**CORPORATE SPORTS**

Sistema's 16th Summer Games in Moscow became the main sports event that attracted teams from virtually all portfolio companies in 17 regions of Russia. Competitions were organised for 600 participants in 15 disciplines from domino to e-sports. All Moscow residents and visitors were invited to take part in the event's entertainment and leisure activities.

In February, Sistema organised its second ski race at the Izumrudny Les eco hotel in the Moscow region. The competition included an individual sprint and a relay race. 59 employees of the Corporation contended for the title of the fastest skier. More than 200 visitors came to support the participants.



**RESULTS OF THE CORPORATE VOLUNTEER CENTRE:**

	2016	2017	2018
Total number of the Group's companies involved in volunteer projects (that took part in at least one event)	18	20	15
Total number of events held	39	38	29
Total number of volunteers that took part in at least one event of SFC	664	675	440
Total number of hours worked by volunteers	3,287	2,700	2,000

**~10%**

**VOLUNTEERS SHARE OF THE TOTAL HEADCOUNT OF THE CORPORATION**

At the end of April 2018, SCF launched the first grant competition titled "Sistema in Support of Good Cause" to select the best volunteer project proposed by the employees of the Corporation. The competition aims to promote and support corporate volunteering at Sistema Group. The main goal of the competition is to award the most relevant and socially important projects initiated by the participants of the volunteer movement irrespective of their place of residence or employment. Among the contenders were projects that have been gradually developing for several years and that aim at supporting underprivileged groups of people, protecting the environment and animals, preserving the cultural and historic heritage and developing a comfortable urban environment. The competition attracted more than 38 entries from 11 companies of Sistema Group from various regions of Russia. The winners received grants for their projects ranging from RUB 45,000 to RUB 110,000. The total grant pool of the competition was RUB 905,000.



## RUB905,000

**TOTAL GRANT POOL OF  
THE COMPETITION "SISTEMA  
IN SUPPORT OF GOOD CAUSE"**

### SISTEMA'S PLANS IN HR MANAGEMENT

The key HR goal of the Corporation is **provision of active support to the business in achieving strategic objectives by means of:**

- ▷ a streamlined system of internal and external recruitment;
- ▷ timely automation of HR processes;
- ▷ development of a result-driven incentive system and corporate environment.

#### Efficient and transparent recruitment process

- ▷ Proactive selection of candidates based on the forecast of business needs,
- ▷ Creating a subs' bench in the external market and making "stars" of the existing key employees.

#### Automation of basic HR processes

- ▷ Introduction of a corporate portal as a single point of access of Sistema's employees to all information and corporate resources from mobile and other electronic devices.
- ▷ Development of modern digital communication channels (social media, mobile corporate magazine).

#### Improving the incentive system as a tool for achieving strategic goals

- ▷ Development of partnership programmes for executives and employees of Sistema
- ▷ Implementation of long-term partnership programmes for the CEOs of portfolio companies (Steppe AgroHolding, Concept Group, etc)

#### Corporate environment – result orientation

- ▷ Development of the corporate culture with a focus on achievement of goals, proactiveness and independence

#### Formation of value proposition for employees and, as a result, increased engagement.



GRI 103-2

# Environmental impact

Sistema aims to maintain a reasonable balance between economic growth and stability of ecosystems and takes into account environmental risks in its investments, while paying particular attention to reduction of the environmental impact of its portfolio assets as part of improving business efficiency through rational use of natural resources, energy saving and implementation of sustainable production and consumption models.

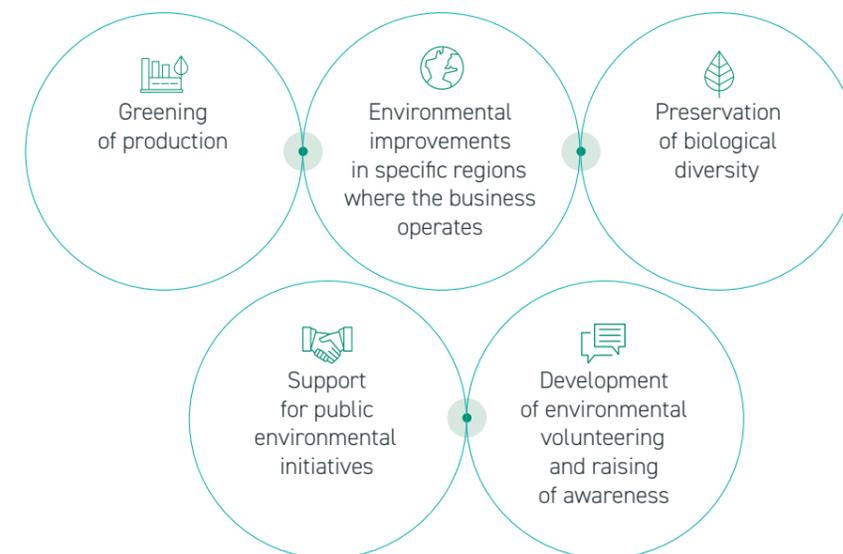
Sistema does not exert any major direct impact on the environment and climate but considers environmental efforts as an integral part of a responsible business: it minimises its environmental impact at the level of the Corporate Centre by determining the priorities of environmental management in assets and monitoring their influence on the environment taking into account their industry specifics.

The Corporation and its assets strictly abide by the environmental laws and regulations. The portfolio companies of Sistema Group are actively participating in environmental projects in the regions where they operate and contribute to the improvement of the environmental situation by raising awareness of the general public about environmental issues to gradually decrease consumption of natural resources.

## RUB1.15+ bn

**WAS SPENT BY THE COMPANIES OF  
SISTEMA GROUP ON ENVIRONMENTAL  
ISSUES IN 2016-2018**

### AREAS OF THE CORPORATION'S ENVIRONMENTAL SUSTAINABILITY



Another important aspect of increasing the environmental efficiency of portfolio companies is monitoring the environmental impact of supply chains throughout a product lifecycle. Some enterprises of RTI Group, Segezha Group, Binnopharm, Detsky Mir and MTS conduct analysis of the relevant aspects. According to MTS's Supplier Code of Conduct, the counterparties of the company should have an environmental policy and observe all the existing laws and regulations in the area of environmental protection. Segezha Group's supply chains are certified by Forest Stewardship Council (FSC), and the company is implementing an intensive forest management model, which will enable it to significantly increase logging volumes and reduce the impact on forests with high ecological value, preserve the biodiversity and the natural ecosystem of forests.

For details, see "[Sustainable development practices of portfolio companies](#)"

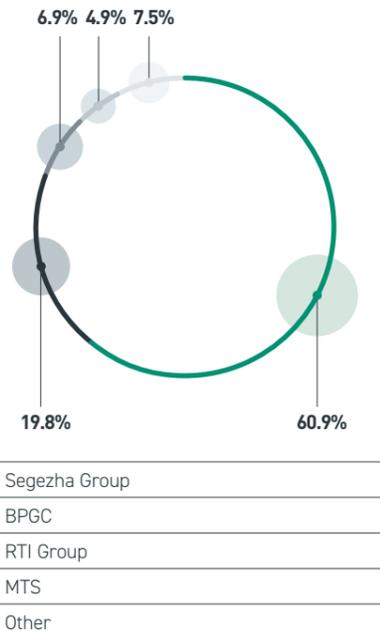
Identification of environmental risks and systematic application of environmental safety principles make it possible for the Group's companies to allocate funds for addressing the most important tasks in this area. The total investments of the Corporation related to prevention of negative impact on the environment, introduction of environmental management, waste disposal and discharge purification systems over the last three years increased by almost 40%.

In 2018, the total amount of investments in the protection of the environment exceeded RUB 450m (+ 17.7% vs 2017) due to expansion of the activities of Sistema's portfolio companies aimed at introduction of green production processes and prevention of negative environmental impact.

**GRI 103-2 THE GROUP'S ENVIRONMENTAL PROTECTION EXPENDITURES, RUB K<sup>1</sup>**



**TOTAL ENVIRONMENTAL EXPENDITURE BROKEN DOWN BY ASSETS, %**



rare animal species (Siberian tigers, Amur leopards, snow leopards, beluga whales, polar bears); restoration of the population of leopards (Persian leopards, snow leopards); publication of a number of books and making of a concept of a modern atlas for school teachers.

**PROTECTING BIRDS AGAINST ELECTRIC SHOCK**



Every year, BPGC takes measures to prevent birds from being killed by electric shocks at power facilities. For this purpose, it uses self-supporting insulated wire in the design, construction and upgrade of 0.4 and 6-10 kV overhead transmission lines. This wire has insulation that provides reliable protection for birds. In 2018, the company used 238 km of such wire on 6-10 kV lines and 648 km on 0.4 kV lines, making it a total of 886 km.

Yet another way to minimise the risk of birds being killed and increase the reliability of power grids is to install bird protective devices on power lines. In 2018, the company installed 4,801 sets of bird protective devices on power lines.

**BPGC'S ALLOCATIONS FOR BIRDS PROTECTION IN 2018**

**RUB 69,721 K**

**PRESERVATION OF BIODIVERSITY AND SUPPORT FOR PUBLIC ENVIRONMENTAL INITIATIVES**

The Corporation supports national and regional environmental efforts aimed at protecting the environment, studying and preserving Russia's diverse natural resources. As part of this work, Sistema cooperates with non-profit environmental organisations to preserve biodiversity and contribute to environmental education.

Since 2010 Sistema has been a partner of the Russian Geographical Society (RGS) in implementing important scientific, research and educational initiatives aimed at promoting natural sciences, studying the geography of Russia, addressing local and global environmental issues. Sistema Charitable Foundation provided its support for RGS's grant programme, which saw financing of 17 research projects for the total amount of RUB 15m in 2018. The financed projects included expeditions to the Gulf of Sakhalin, Amurskiy estuary and Kildin Island in the Barents Sea; publication of a monograph with an atlas on the key stages of exploration of Kamchatka; research of

Segezha Group, BPGC, RTI Group and MTS became leaders of environmental investment among the assets of the Corporation. Power grid enterprises are making a significant contribution to environmental protection. The main areas of investments made by BPGC in accordance with the identified environmental goals of the company in 2018 included installation of discharge water purification facilities (~RUB 9.4m) and implementation of bird protection measures at power lines (~RUB 70m).

In 2018, Sistema's portfolio assets received 100 environmental fines, which is negligible for the Group (does not exceed 0.001% of the Group's consolidated revenue).

<sup>1</sup> Consolidated data includes: MTS, RTI Group, Sitronics, Kronstadt, Segezha Group, Binnopharm, Steppe AgroHolding, Business Nedvizhimost, BPGC, Cosmos Hotel Group.

**ENVIRONMENTAL AWARENESS CLASSES AT MTS**

Since 2014, MTS has been successfully implementing the "Mobile Technologies for Ecology" project aiming to conduct interactive classes in environmental awareness at schools across Russia. In five years more than 14.5 thousand teachers from more than 80 regions of Russia provided classes to about 380 thousand schoolchildren, who learnt how to use the latest mobile technology to preserve nature, save human lives, put out forest fires, and care about birds and animals. In 2018, MTS with the support of the eco centre Nature Reserves started developing a new course for schoolchildren designed to teach them to observe nature.



**SUSTAINABLE PRODUCTION AND CONSUMPTION MODELS**

Sistema is managing the environmental impact of its assets by forming a culture of responsible production operations aimed at decreasing the resource intensity of products and cutting production waste.



**SEGEZHA GROUP PRESERVES THE DIVERSITY OF NATURAL ECOSYSTEMS**

Being the largest responsible forest user in European Russia, Segezha Group aims to decrease its impact on forests with high ecological value, preserve the biodiversity and the natural ecosystem of forests in the allowable cut areas. Segezha Group is consistently improving the quality and composition of leased forests to make sure that several new trees are planted to replace the logged one. Since the company's operations influence the habitat of various animals, including endangered species, in order to support the population of rare species, Segezha Group has adopted a practice of conservation of forest areas that are important for the survival of animals and stopped using toxic chemicals.

For more detail see ["Responsible forestry"](#)



**NUMBER OF RED LIST ANIMALS INHABITING THE AREAS OF SEGEZHA GROUP OPERATIONS**

Risk level	Republic of Karelia	Vologda region	Kirov region	Arkhangelsk region	Krasnoyarsk region
Critically endangered	2	4	10	4	0
Endangered	8	11	15	3	0
Vulnerable	8	51	65	15	6
Near threatened	6	152	3	39	14
Least concern	22	30	1	10	13
<b>Total</b>	<b>46</b>	<b>248</b>	<b>84</b>	<b>71</b>	<b>33</b>

**ENERGY**

The portfolio companies of Sistema are committed to rational use of natural resources and increased use of renewable energy. Implementation of smart technologies in the electric power sector and introduction of the principles of lean and cyclical manufacturing help decrease power losses, cut the energy costs of manufacturers and reduce the carbon footprint of the produced goods.

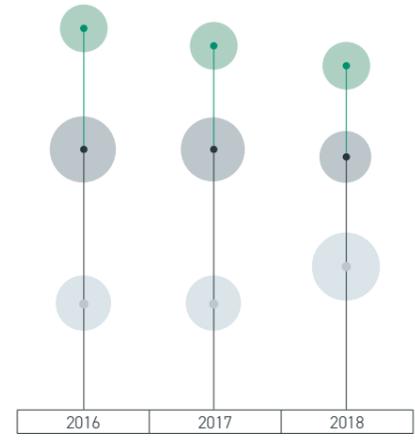
There is a general downward trend in consumption of fuel and energy resources at Sistema Group: it dropped by 7.4% year-on-year and by almost 13% in three years. Due to implementation of energy-saving technologies and migration of assets to more energy-efficient and environmentally friendly types of fuel, specific energy intensity across the Group was 180.3 GJ/million roubles of consolidated revenue, which is 17.4% higher than in 2017.

GRI 302-4

**GRI 302-1 CONSUMPTION OF FUEL AND ENERGY RESOURCES AT SISTEMA GROUP, GJ<sup>1</sup>**

▼ 12.7%

160,709,978 | 151,346,518 | **140,174,126**



	2016	2017	2018
Heating power	50,396,648	42,175,928	34,730,298
Electric power	66,973,100	65,471,644	50,581,762
Fuel	43,340,230	43,698,946	54,862,067

Fuel has a significant share in the general structure of energy resources consumed by Sistema Group, including gas, diesel fuel, petrol and coal. Industrial and agricultural assets inevitably lead the portfolio by fuel consumption due to the nature of their businesses, growing production volumes and the fact that they operate their own boiler plants that supply heat and hot water not only to the production facilities, but also to local communities.

Among other types of fuel it is important to note the increasing role of wood waste that is used by Segezha Group. The company abides by the EC's energy efficiency directives that encourage companies to drive down the energy component of product costs and stimulate the production of bioenergy. Lesosibirsk Woodworking Plant No 1 (LWP No 1), one of Russia's leaders in sawn timber production, accumulates big volumes of timber processing by-products and uses them as fuel. Segezha PPM has built a modern multifuel boiler that uses bark waste and wood chips instead of fuel oil. The production facilities located in Onega, the Arkhangelsk region, are also using similar fuel instead of coal.

**WATER**



Sistema's portfolio companies aim to maintain optimum water consumption levels at their production facilities. Over the last three years, water consumption across the Group has remained relatively stable: about 193K cu m. In 2018, there was a slight increase in water consumption (4%) compared to the previous year due to the increased industrial needs of RTI Group and the launch of new production facilities of Segezha Group.

Sistema's hotel assets and Segezha Group account for most of the consolidated water withdrawal.

Most of the water used (74.9%) is sourced from water pipelines, while secondary water use has been gradually increasing primarily due to the production facilities of the forest holding.

**GRI 303-3 WATER REUSE, K CU M**

▲ 2.3%

49,949.0 | 50,058.0 | **51,095.0**



In accordance with the existing laws, the water used by the companies of Sistema Group is discharged to a sewer system or directly to watercourse. Most of effluents (79.2%) are discharged to central or local sewer systems that are equipped with all the necessary treatment filters. Before being discharged to a sewer system, waste water is purified to the level required by law. Some production facilities discharge water directly to the nearby watercourses subject to obtaining a permit from the Federal Service for Supervision of Natural Resources. Segezha Group accounts for the greatest share of purified water: its production facilities aim to minimise water pollution and have their own treatment facilities which help reduce the content of formaldehyde (35 times) and iron (20 times) in waste water. The share of water purified by own treatment facilities of Sistema's portfolio companies increased by 6.3% year-on-year.

**WASTE**

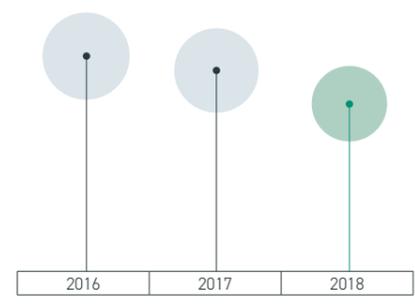


Sistema and its assets share a responsible approach to the disposal of industrial waste. Despite an increase in the amount of industrial waste produced by the Group in 2018 as a result of expansion of its business scale, most of the waste is classified as either low-hazard or non-hazardous (classes IV and V) due to the industry specifics of its portfolio companies.

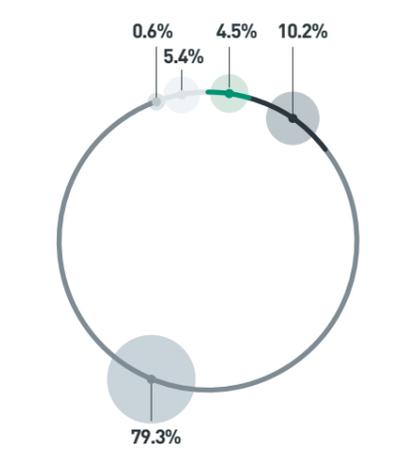
**GRI 302-3 ENERGY INTENSITY, GJ/MILLION ROUBLES OF CONSOLIDATED REVENUE**

▼ 23.6%

236.0 | 218.3 | **180.3**

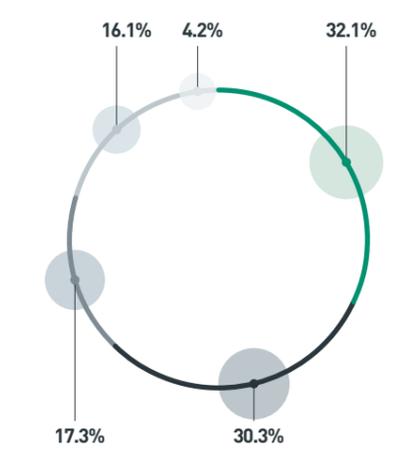


**FUEL CONSUMPTION WITHIN SISTEMA GROUP IN 2018, %**



Coal	79.3%
Natural gas	5.4%
Diesel fuel and fuel oil	4.5%
Petroil	10.2%
Other types of fuel	0.6%

**WATER WITHDRAWAL BY SISTEMA ASSETS IN 2018, %**

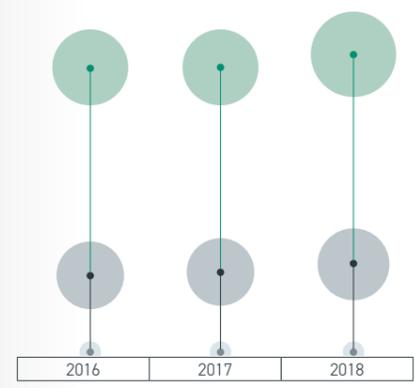


Cosmos Hotel Group	32.1%
Segezha Group	30.3%
RTI Group	17.3%
Sitronics	4.2%
Other <sup>2</sup>	16.1%

<sup>1</sup> Consolidated data includes: MTS, RTI Group, Sitronics, Segezha Group, Medsi, Binnopharm, Concept Group, Steppe AgroHolding, Business Nedvizhimost, BPGC, Cosmos Group, EWUB.  
<sup>2</sup> "Others" include: MTS, Binnopharm, Steppe AgroHolding, Business Nedvizhimost, BPGC, EWUB.

**GRI 303-1 WATER WITHDRAWAL BY SOURCE, K CU M**

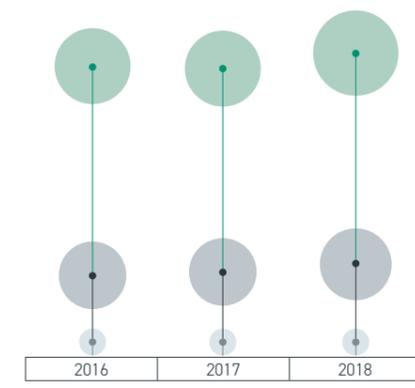
192,012 | 190,015 | **197,865**



	2016	2017	2018
From water pipes	144,952	144,578	148,340
From natural sources	46,384	44,809	48,585
From other sources	676	628	940

**WATER DISCHARGE, K CU M**

184,202 | 180,044 | **188,566**

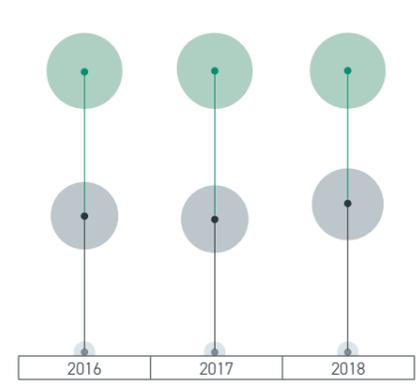


	2016	2017	2018
Sewer	145,533	142,844	149,420
Purified water	31,658	32,074	34,101
Direct discharge	6,991	5,126	5,045

<sup>1</sup> Consolidated data includes: MTS, RTI Group, Sitronics, Kronstadt, Segezha Group, Binnopharm, Detsky Mir, Steppe AgroHolding, Business Nedvizhimost, BPGC, Cosmos Group.

**GRI 306-1 TOTAL WASTE, TONNES<sup>1</sup>**

1,332,303 | 1,265,391 | **1,606,601**



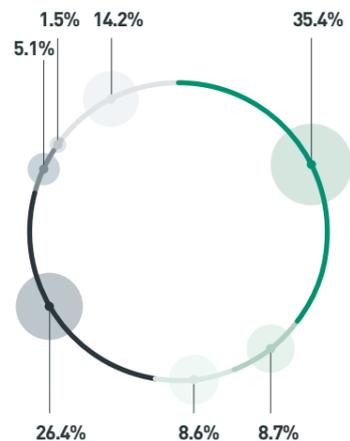
	2016	2017	2018
IV, low hazard	52.1%	55.0%	49.2%
V, practically non-hazardous	47.8%	44.9%	50.6%
I-III (extremely hazardous, high hazard, moderate hazard)	1.0%	0.1%	0.2%

<sup>1</sup> GRI 306-2

The companies of the Group aim to ensure quality disposal of industrial waste and set strict requirements for the contractors engaged as part of full-cycle waste disposal process: removal, sorting and recycling, and preparation of reports that confirm the quality of the provided waste disposal services. Overall, the structure of waste across the group by disposal method has been steady for the last several years. 44% of the total waste is either reused or recycled.

**44%**  
OF THE TOTAL WASTE IS EITHER REUSED OR RECYCLED

**TOTAL WASTE BY DISPOSAL METHOD IN 2018, %**



Reuse
Composting
Recycling and recovery, incl. energy extraction
Incineration
Landfill
Landfill on premises of production facility
Other disposal methods

Segezha Group generates most of the industrial waste (91.2%), as deep processing of wood produces a lot of bark, sawdust, and offgrade chips that are reused by the holding's production facilities. As part of transition to a cyclic production model, Segezha Group is implementing projects in two key areas: installing biomass-fired boilers and replacing fuel oil with bark waste and waste water sludge; and production of biofuel in the form of fuel briquettes and pellets whose technical characteristics make it possible to generate big volumes of heat and reduce harmful emissions by 40%.

**SEGEZHA GROUP: INSTALLATION OF A MULTIFUEL BOILER THAT UTILISES BARK WASTE**



As part of the investment project for modernisation of Segezha PPM, a new boiler unit fired by bark waste was commissioned. The new multifuel boiler will help increase energy efficiency and reduce the facility's impact on the environment:

- ▷ transfer the plant to full-cycle timber processing and fully use the potential of logged timber;
- ▷ use wood waste and waste water sludge as fuel, therefore reducing emissions in the atmosphere and resolving the waste disposal issue. The new filter will ensure that the gas discharged by the multifuel boiler is almost perfectly clean.

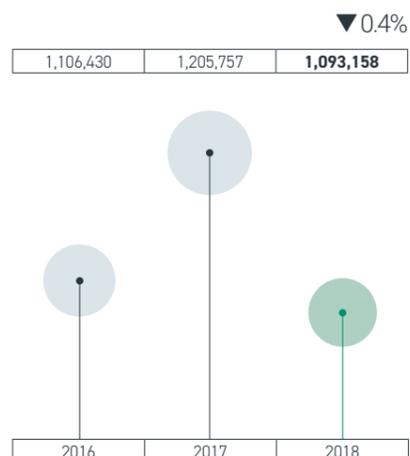
**EMISSIONS**



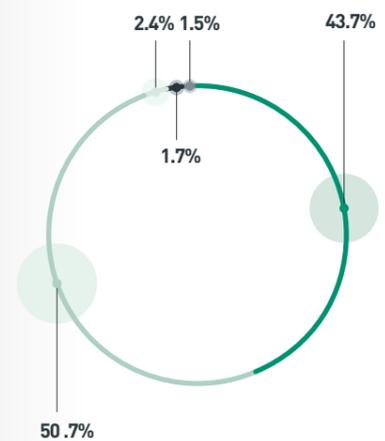
Most of Sistema Group's greenhouse gas emissions and other atmospheric emissions are produced by the wood processing and agricultural assets. In a bid to reduce their direct environmental impact, these companies take technological measures to limit the emission of pollutants destroying the ozone layer, greenhouse gases, chemicals, and other harmful emissions. Those portfolio companies of Sistema that do not produce major greenhouse gas emissions are also monitoring and reporting CO<sub>2</sub> emissions, including those generated by transport vehicles.

**DIRECT GHG EMISSIONS, TONNES<sup>1</sup>**

GRI 305-1



**DIRECT GHG EMISSIONS IN 2018, BY GROUP COMPANIES, %**



Steppe AgroHolding
Segezha Group
MTS
RTI Group
Other

The volume of other significant emissions also substantially decreased in the reporting period - by 15.5% vs 2017. A sizeable reduction in sulfur dioxide emissions continued (by an average of 87.4% in the last three years).

**TOTAL VOLUME OF DIRECT GREENHOUSE GAS EMISSIONS ACROSS SISTEMA GROUP IN 2018 WAS REDUCED BY**

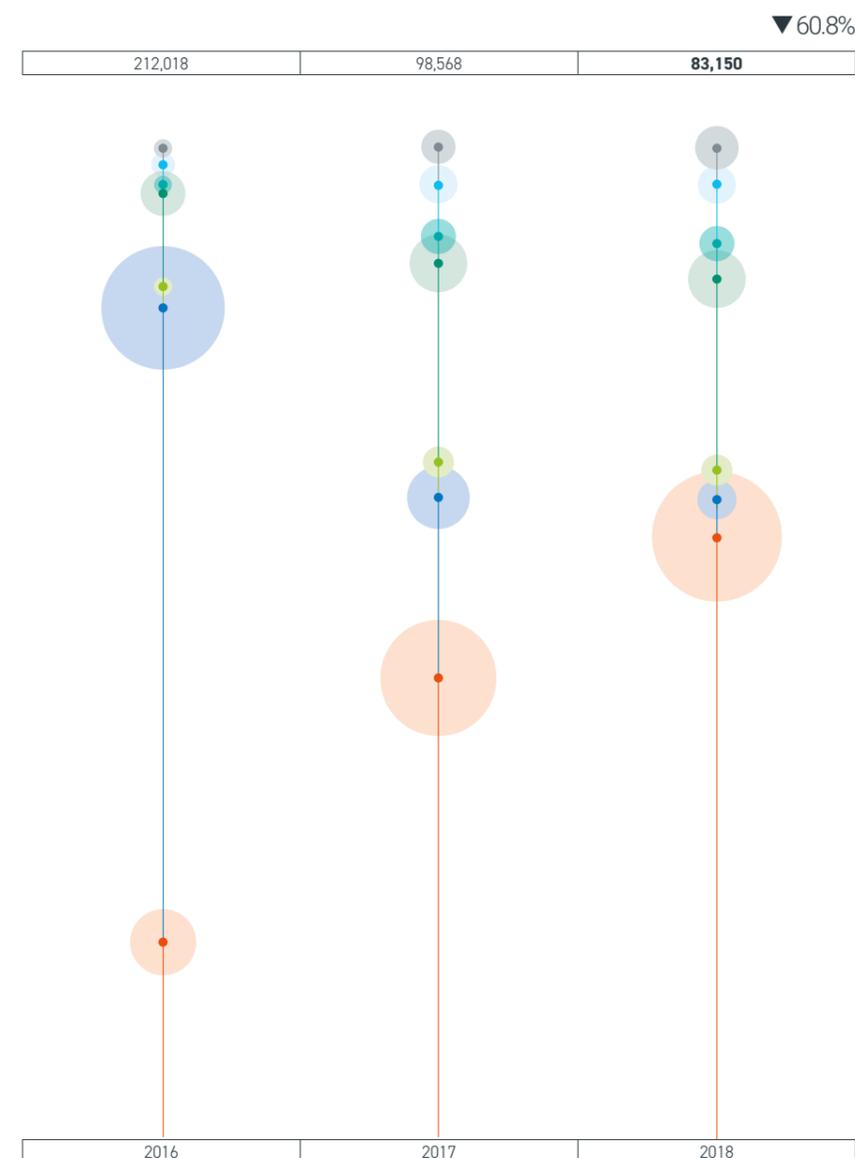
**9.3%**

**AVERAGE ANNUAL RATE OF EMISSIONS REDUCTION IN 3 YEARS**

**0.4%**

**MATERIAL EMISSIONS OF NO<sub>x</sub>, SO<sub>x</sub>, AND OTHER SIGNIFICANT POLLUTANTS<sup>1</sup>**

GRI 305-7



	2016	2017	2018
NO <sub>x</sub>	19.6%	46.2%	61.7%
SO <sub>x</sub>	64.3%	18.6%	2.6%
Persistent organic pollutants	1.2%	2.6%	2.1%
Volatile organic compounds	9.1%	20.2%	19.6%
Hazardous air pollutants	1.3%	2.8%	3.3%
Particulate matter	2.9%	5.7%	6.6%
Other standard categories of emissions used in relevant regulations	1.6%	3.9%	4.1%

<sup>1</sup> Consolidated data includes: RTI Group, Sitronics, Segezha Group, Steppe AgroHolding, Business Nedvizhimost, BPGC, Cosmos Group, EWUB.

<sup>1</sup> Consolidated data includes: RTI Group, Sitronics, Binnopharm, Steppe AgroHolding, BPGC, Cosmos Group.

## THE TELECOM INDUSTRY AGAINST GLOBAL WARMING

MTS joined GSMA's global initiative to develop an industrial road map setting out actions aimed at minimising the impact of the telecom industry on climate in accordance with the Paris Agreement on climate change.

Cooperation with the GSMA on climate issues is designed to enhance the company's efforts in the area of ensuring total transparency on environmental impact and raising public awareness about the company's initiatives aimed at increasing energy efficiency and cutting carbon emissions.

An agreement on information disclosure is the first step towards achieving global long-term goals. Following GSMA's initiative, an industrial road map will be developed to set out measures against climate change, including a plan for decarbonisation of the telecom industry to achieve zero greenhouse gas emissions by 2050.



“*We hope that our cooperation with the GSMA on climate change will help MTS reduce its greenhouse gas emissions from the use of own company infrastructure. By providing digital services, we intend to help our customers from other industries reduce carbon emissions and fulfil the sustainable development goals of our country.*”

**ALEXEY KORNYA**  
CEO of MTS Group



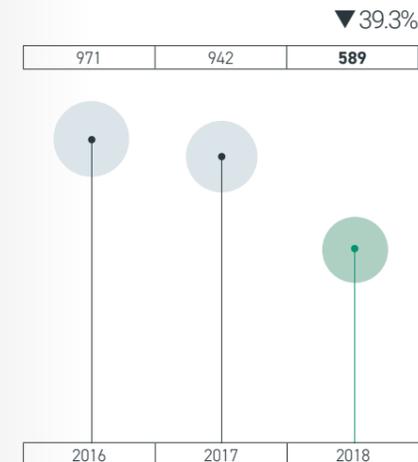
## PAPER

Digitalisation of business processes and transfer of the Corporations' assets to electronic document flows helps increase the efficiency of operations and decrease the consumption of paper, which is an important source of impact on the environment during its life cycle. For example, OZON's online store started cooperating with an external e-document sharing platform, making it possible to introduce paperless document management in vendor relations.

For more details, see ["Sustainable development practices of portfolio companies"](#)

In the reporting period, paper consumption at the portfolio companies of the Group significantly decreased (by 37.5% vs 2017). At the same time, about 23% of all paper consumed over the last three years comes from responsible sources, which is confirmed by FSC certification.

## PAPER CONSUMPTION, TONNES<sup>1</sup>



## FORMING THE CULTURE OF ECO-FRIENDLINESS AMONG EMPLOYEES AND CUSTOMERS

Sistema's portfolio companies seek to raise awareness of its employees and customers about conscious consumption in order to increase their personal responsibility for rational use of natural resources. The assets of the Corporation take part in environmental initiatives for collection and disposal of recyclable materials and organise joint campaigns aiming to make consumers more aware about the need to preserve natural resources for future generations. Every year volunteers from MTS collect more than 24 tonnes of waste paper for recycling.

On 18 October 2018, Segezha Group and Detsky Mir held a joint environmental campaign to mark the European Paper Bag Day.

The aim of the campaign was to reduce plastic footprint. The initiative included 178 Detsky Mir stores in the Moscow region, 32 stores in St Petersburg and 28 stores in Kaliningrad, Petrozavodsk, Novgorod, Murmansk, Pskov, Severodvinsk and other Russian cities. The stores handed out 40,000 free paper bags produced by Segezha Group to customers. With the help of this campaign Detsky Mir and Segezha Group made a contribution to the formation of responsible consumer culture, raised peoples' awareness about the environmental issues related to pollution with plastic waste and showed that it was possible to replace plastic packaging with biodegradable paper bags.



<sup>1</sup> MTS, RTI Group, Sitronics, Binnopharm, Detsky Mir, Concept Group, Steppe AgroHolding, Leader Invest, Business Nedvishimost, BPGC, Cosmos Group, Sistema Capital, EWUB.

# SUSTAINABLE DEVELOPMENT PRACTICES OF PORTFOLIO COMPANIES

TELECOMMUNICATIONS AND DIGITAL SERVICES	116
HIGH TECHNOLOGY	124
FOREST INDUSTRY	132
HEALTHCARE AND PHARMACEUTICALS	138
THE CONSUMER SECTOR	146
AGRICULTURE	150
REAL ESTATE	154
ELECTRIC POWER	158
HOSPITALITY BUSINESS	162
FINANCE	165



# Telecommunications and digital services

## 105.3 m

**MOBILE SUBSCRIBERS AND INTERNET USERS**

## RUB30 m

**INVESTED IN IT STARTUPS**

## 65,000+

**EMPLOYEES IN THE DIGITAL FIELD, INCLUDING**

## 5,000+

**IT PROFESSIONALS**

## 7,000+

**CORPORATE VOLUNTEERS**

MTS Group and Sitronics, which are included in Sistema's portfolio, implement unique and comprehensive projects that increase the comfort and safety of people, ensure the control of technology processes and create the basis for the emergence of smart and sustainable cities.

PJSC Mobile TeleSystems is a leading Russian multi-service technology company providing mobile and landline services, Internet access, television broadcasting, modern digital services and convergent IT solutions to households and businesses in Russia, Armenia, Ukraine and Belarus.

JSC Sitronics designs and manufactures telecommunication products that improve LTE coverage inside shopping malls and office buildings and provide stable cellular

communications in hard-to-reach and sparsely populated areas, along highways/ railways and in areas of emergency situations or public events. The company also develops speech technologies that are widely used by call centres (including for monitoring the work of operators), creates intelligent transport and energy systems, and implements anti-criminal, anti-terrorist, anti-vandal, technology, information and economic security systems.

Over the past few years, MTS has successfully moved from the model of a classic telecom operator to the format of a digital company and has accumulated enough competences in development and implementation of advanced technology solutions in real life and digitalisation of enterprises and entire regions.



### TRADITIONAL TELECOM:

- ▷ mobile and fixed communications
- ▷ broadband Internet access
- ▷ cable and satellite TV
- ▷ retail chain
- ▷ online store



### DIGITAL BUSINESS:

- ▷ Internet of Things (IoT), machine-to-machine communication (M2M) and remote monitoring
- ▷ big data and cloud computing
- ▷ financial services
- ▷ mobile apps
- ▷ e-commerce and online cash registers
- ▷ electronic document management
- ▷ system integration and IT outsourcing
- ▷ telemedicine
- ▷ online education



Digital economy development, innovative services and ecosystem solutions for business, society and people



By investing heavily in telecommunications infrastructure and providing innovative services, MTS makes a significant contribution to the development of its territories of operations and improvement of the quality of life of tens of millions of people, thus implementing its corporate social responsibility strategy. The company is building its system of CSR and sustainable development in accordance with the needs of society, consumers, shareholders, employees, government, non-profit and public organisations, local communities, partners and suppliers.

MTS ensures accessibility and constantly expands the range of digital services, offering online education and telemedicine projects, and also implements social, charitable and educational programmes for schoolchildren, students and the elderly, aimed at development of tech entrepreneurship, increased IT and mobile literacy, and adaptation to the conditions of the digital economy.

For more details see [MTS Group's Sustainable Development Report for 2018](#)

**THE MAIN MISSION OF MTS IN THE AREA OF SUSTAINABLE DEVELOPMENT IS TO IMPROVE THE QUALITY OF LIFE AND SECURITY OF PEOPLE THROUGH INNOVATION AND PROVISION OF A WIDE RANGE OF AFFORDABLE AND RELIABLE SERVICES TO CUSTOMERS.**



*"We are witnessing how digital technology permeates all aspects of our lives and erases boundaries that seemed impassable several years ago. Today MTS is transforming into an ecosystem of businesses. Our objective is to become a key player in new areas for the company. We are facing serious challenges in such areas as financial technology, cloud computing, big data, artificial intelligence, digital education, esports and telemedicine."*

**ALEXEY KORNYA**  
President of MTS

### MODERNISATION OF COMMUNICATION NETWORKS

The development of innovative products and the expansion of the scope of new services based on communication networks are the basis for the formation of a digital economy, and a modern telecom infrastructure is a prerequisite for its development.

MTS Group's investments in infrastructure totalled RUB 86.5bn in 2018. The share of MTS's expenditures for the construction and development of communication networks was 34.3% of the total expenditures of Russia's Big Four telecom companies.

In 2018, MTS increased its investment in network development in Russia by 13.2%, focusing on ensuring better LTE coverage.

### ISO 26000 SELF-ASSESSMENT

In 2018, MTS conducted self-assessment for compliance with the recommendations of the international standard ISO 26000:2010 "Guidance on Social Responsibility".

The self-assessment showed that the company effectively runs necessary business processes and has relevant local regulations in place. MTS has a mature system and all necessary resources to move from the classic CSR model towards the model with the sustainable development being integrated into the company's business strategy and activities of its key divisions.

The Sustainable Development Strategy is reviewed annually by the President's CSR Committee and then submitted for approval to the MTS Management Board.

During the reporting period, MTS built more than 21,500 base stations in 83 regions of Russia. More than a half of them are of the LTE standard. At the end of 2018, 4G coverage reached 68% of the Russian population. MTS also continued to expand its trunk fibre-optic lines. Penetration of FTTB and GPON networks reached 93.2% at the end of 2018.

The prospects for the widespread adoption of effective solutions based on the Internet of things are connected with the development of 5G technologies, which will give operators the opportunity to create many new services. MTS conducts research in this area and tests new solutions in partnership with major global players in the information and communication market: Ericsson, Nokia, Samsung and Huawei.



For the 2018 FIFA World Cup in Russia, MTS built high-capacity zones in crowded places with active traffic consumption using Massive MIMO technology that will be widely used in the fifth generation communication networks. This technology was launched in seven cities: Moscow, St Petersburg, Kazan, Rostov-on-Don, Nizhny Novgorod, Yekaterinburg and Samara.

After the World Cup, MTS continued to use Massive MIMO base stations in the most visited commercial areas and also began to launch them in more regions.

The first commercial high-speed LAA network of Russia and Eastern Europe was launched in 2018 in Ufa, where the peak downlink speed reached 1 Gbps. This technology is an important milestone on the road to 5G, since it will be used for active consumption of large volumes of traffic. MTS demonstrated the real-life operation of the first prototype of a 5G tablet by Samsung in the Museum of Communications in St Petersburg: the speed at the physical layer of the device reached 2 Gbps. As part of its agreement with Ericsson, the company plans to deploy the first fragments of 5G networks in pilot zones and commercial clusters in 2019.

## ACCESSIBILITY OF SERVICES

One of the main tasks of MTS's social and business strategy is eliminating the digital divide, i.e. providing access to information and modern means of communication regardless of the place of residence and location of subscribers, income level and other factors, with the same level of service for all. Due to the affordability of communications, consumers have equal opportunities to communicate with their loved ones and receive e-government, educational, medical and other remote services.

Despite the active development of self-service channels, such as My MTS app providing a transparent and simple way of controlling costs and managing mobile services in Russia and abroad, MTS's own retail chain with over 5,800 outlets remains an important point of contact with customers. Any new service of the company automatically becomes available in the retail chain's outlets, where customers can get all the necessary consultations.

The use of big data allowed MTS not only to optimise the geography of its retail chain by moving outlets closer to usual routes of existing and potential customers, but also to improve its e-commerce system. The MTS online store has become "smarter" due to the introduction of a technology based on machine learning and analysis of consumer behaviour data and customer preferences, which allowed the company to launch a personalised recommendations service that helps customers choose electronic devices.

AI has sped up and simplified the process of getting a SIM card. The innovation of 2018 was SIM card kiosks installed at railway terminals, airports, metro stations, hotels and shopping malls in many Russian cities.

MTS services and products for the B2B segment are focused not only on big business, but also on small and medium-sized businesses to which the company offers various tools for optimising business processes and operating costs.

## SERVICE FOR DEAF PEOPLE

In Ukraine, MTS started the introduction of a virtual sign language interpreter in its outlets to serve deaf customers. To start an online chat with a store expert, a customer needs to scan a QR code with their smartphone or use a special app installed on employees' tablets.

## ELIMINATING DIGITAL DIVIDE IN THE ARCTIC

MTS is actively developing mobile communications in remote areas, including in the Far North. For instance, investments in the telecommunication infrastructure of the Yamal-Nenets Autonomous District not only improved the quality of communications, but also provided access to mobile Internet at up to 100 Mbps in both cities and remote shift camps in permafrost conditions. For example, 4G Internet became available in the village of Gornoknyazevsk with some 110 residents. MTS also provided high-speed mobile Internet on the territory of the well-known open-air museum with wooden buildings of the 19th century. MTS also took into account this region's long distances because of which residents spend a lot of time on the road. In 2018, high-speed Internet became available at the airport of Novy Urengoy, the Urengoy River Port and the "Surgut-Novy Urengoy" highway. Connecting Yamal cities to 4G communication remains one of the priorities for MTS in 2019.



## INTERNET ON ELBRUS

At the end of 2018, MTS installed a new base station on Elbrus, which provides mobile Internet at an altitude of up to 5,100 m and voice communication to the very top of the mountain. It is the most high-altitude cellular communication facility in Russia and Eastern Europe, which helps skiers and climbers always stay in touch and EMERCOM employees conduct rescue operations more effectively.

In 2018, MTS released a boxed solution that allowed individual entrepreneurs to switch to online cash registers in accordance with the requirements of Russian laws. When purchasing an MTS Cash Register device, customers get the Easy Start kit, which includes not only a cash register, but also cloud software, fiscal data operator services and a telematic SIM card, and the company's service engineers set up the necessary equipment for free and train customers to use the cash register.

Another new product for small and medium-sized businesses was the innovative digital platform MTS Marketing, which provides access to effective promotion of products and services based on big data. Such opportunities were previously available only to large companies with the necessary resources to collect, analyse and process enough information. MTS Marketing allows customers to set up a targeted advertising campaign using machine learning algorithms at minimum costs. Thus, even small businesses can choose a target audience using more than 120 parameters from among those who are really interested in the services offered for bulk messages via SMS, email, instant messengers or other channels.

## INNOVATION AND CONTRIBUTION TO DIGITAL ECONOMY

In 2018, MTS not only strengthened in-house development team on the basis of its own Innovation Centre by employing more than 1,000 IT specialists, including for Big Data and AI units, but also actively cooperated with external developers and startups.

For eight years now, the company has been implementing the Telecom Idea programme aimed at finding and supporting promising projects of talented young people interested in developing the field of information and communication technologies, as well as services in the interests of business, society and the state. In 2018, more than 5,000 students, young scientists, research teams and developers took part in the selection stages, submitting about 250 applications from 7 countries and 70 cities of Russia. More than 40 finalist teams received support from mentors at the Higher School of Economics, and 5 of them received an invitation to an educational tour abroad.

In 2018, the company introduced a new effective tool for working with technology companies that already have their own product – the corporate accelerator MTS StartUp Hub. It carries out targeted selection, acceleration and viability tests, and offers the opportunity of cooperation with MTS on commercial terms with the implementation of the most interesting technologies. High-tech startups get unique opportunities for scaling up their business through access to MTS's infrastructure, customer base and sales channels, and MTS gets an opportunity to quickly innovate. In 2018, MTS StartUp Hub had two enrolment periods, during which more than a thousand applications from 13 countries were submitted. To date, 40 startups have already went through the accelerator programme, and 33 pilot projects have been launched and tested on the MTS infrastructure, 60% of them successful. Several teams started scaling.



## IOT EXPLORIUM: AN OPEN LAB OF THE INTERNET OF THINGS

MTS is the only Russian operator whose representative was included on the board of the GSM Association (GSMA) for 2019-2020. The company actively uses international cooperation within this industry group, which includes about 750 operators and almost 350 companies participating in the telecom market, to accelerate the introduction of the most advanced standards and technologies in Russia.

In 2018, the 27th Open IoT Lab in the world and the first one in Russia opened in Moscow as part of the GSMA's global initiative for the development of mobile IoT. It showcases pilot solutions of a number of vendors in smart homeware, smart city infrastructure, smart utilities and connected security systems based on the Narrow Band IoT (NB-IoT) technology, as well as the operator's own IoT services ready for implementation, such as Smart Metering.

# 3,000+

**FULL-TIME IT SPECIALISTS  
ARE EMPLOYED BY MTS**

MTS is an active participant in the national programme Russia's Digital Economy approved in July of 2017 and designed for systematic development and implementation of digital technology in all spheres of life. MTS is one of the co-founders of Digital Economy, a non-profit set up to coordinate interactions between the business community, academic institutions and public authorities. The company is heavily involved in ongoing improvements of the regulations and legislation in the sphere, including regulations for big data, artificial intelligence, blockchain and cybersecurity.

The concept of a "Smart City" is increasingly important for improving the quality of everyday life and for developing the economic potential of regions. The issues and challenges of modern cities related to the growth of population, car traffic, etc. require innovative solutions.

In 2018, MTS signed 13 agreements with the administrations of cities and regions of Russia for the development of technologies for digitalisation of urban infrastructure. The company offers adaptive solutions based on IoT and system integration for the needs of each specific city. This will improve the safety of the urban environment and increase the efficiency of the use of resources of the regional economy. As part of the agreement with the Skolkovo technology park, a test zone with the NB-IoT network was launched, which is open for startups and companies developing products and solutions in the field of the "Smart City".

For more information on Smart City solutions, see [2018 MTS Group's Sustainable Development Report](#), pages 41-43.

#### Sitronics also contributes to the digital development of Russian regions:

- ▷ **Intelligent transport system** controls traffic and monitors road safety in cities, providing information and ensuring safety for consumers and a higher level of interaction between road users by:
  - recording traffic violations (speeding, violations of sign and marking requirements, violations of weight and dimensions requirements by trucks, etc);
  - analysing traffic flows and increasing road capacity by up to 20% due to automated adjustment of traffic lights;
  - displaying traffic jams on electronic screens along the roads;
  - monitoring the weather and adjusting the work of road services.
- ▷ **The Smart City platform** reduces the number of offences by one-third, reduces the response time of emergency services by 25%, reduces the accident rate and increases the road capacity.
- ▷ **Unified regional integration platform Safe City** combines data transmitted by the call receiving service and the systems of video surveillance and photo/video recordings, collects and processes

information about traffic violations and public disturbance, and man-made and natural disasters, and coordinates the work of emergency services, utilities services, executive authorities and law enforcement agencies.

- ▷ **Unified command centre** monitors the status of potentially dangerous facilities in the city and region, predicts emergencies and sends alerts about them.

The automated dispatch control system for ground passenger transport created by Sitronics has been operating in Moscow since 2013 and has already helped reduce traffic congestion by 15%, transit time by 25% and accident rate by 20%.

In the run-up to the 2018 FIFA World Cup, experts of the Sitronics development and prototyping centre developed a system for automatic passage and passenger counting for the Moscow Metro in record time. Within a month, a contactless fare payment system was deployed at 28 metro stations with high passenger traffic near the main sports venues. An automated turnstile made it possible to ride for free on the days of the matches using the fan ID without any additional actions on the part of a passenger or station staff.

# 160,000+

**FANS OF THE 2018 FIFA WORLD CUP WENT THROUGH THE MOSCOW METRO'S AUTOMATED TURNSTILES FOR FREE RIDES**



It resulted in elimination of delays and queues at the entrance and increased throughput, safety and comfort. The created system helps analyse the load on the transport network in real time and quickly adjust the traffic intervals. This solution can be implemented on all types of public transport to organise fare payment and passenger control and to ensure security during mass events.

See ["High technology"](#).



Sitronics solutions are also used by the video surveillance systems in Moscow's educational institutions, while MGTS (part of MTS Group) implements digital technologies to improve the security of Moscow's cadet schools. By the beginning of the 2018/2019 school year, the company equipped more than 40 educational institutions with video surveillance, installing about 370 cameras at the entrance to the buildings and in dining rooms, gyms, stairwells and sports grounds. The video surveillance system will become an additional effective tool for the cadet corps to control the educational process, protect the rights and interests of its participants and ensure prompt response in injury-risk situations.

# 40+

**EDUCATIONAL INSTITUTIONS HAD CONNECTED TO VIDEO SURVEILLANCE BY SISTEMA TO THE BEGINNING OF THE 2018/2019 SCHOOL YEAR**

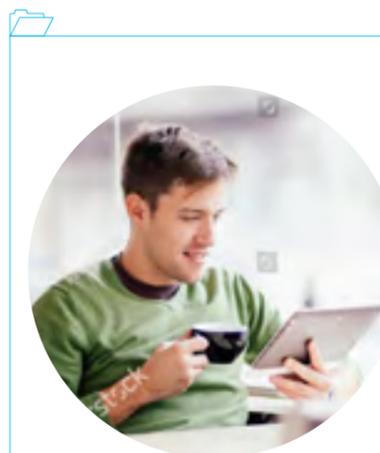
## LABOUR PRACTICES

MTS is a responsible employer who takes care of its employees by offering various support programmes, improving working conditions and promoting a healthy lifestyle. In 2018, the company launched several social HR projects for various categories of employees.

The project "MTS is a company for all ages" is aimed at people aged 40+ and solves two key tasks: hiring and adapting mature employees, and improving the quality of service for elderly customers. MTS not only provides equal opportunities for job applicants of all age groups, but also puts a lot of effort to change stereotypes leading to labour discrimination. The project involves employees of different ages from various departments of the company, as well as employment centres in 12 regions of Russia. Within the framework of the project, educational workshops are held for both potential applicants and existing employees. In order to promote the project, the company launched a social advertising campaign called "Looking for a job?", which showed employees of MTS's retail chain and call centres older than 40. As a result of the programme, the vacancy filling rate increased (including thanks to the candidates recruited through the employment centres), the churn rate among employees aged 40+ decreased, and the level of satisfaction of elderly customers increased in 2018. The project "MTS is a company for all ages" was recognised as one of the "Best Social Projects in Russia" in the category "Corporate Projects".

MTS has a unique offer in the labour market – extra days off for foster parents. The company provides five additional fully paid days off during a calendar year for its employees who decided to adopt a child from an orphanage so that they can complete the paperwork. For employees who have already become foster parents, custodians or guardians, MTS also provides five additional days off during the first year.

In 2018, the company implemented the "Buddy" programme for employees willing to help new colleagues throughout the entire adaptation period. On the corporate web portal, each new employee can find a volunteer mentor in their office or contact a colleague from another region.



### MTS'S HR DIGITALISATION PROGRAMME

MTS implemented the WorkForce Management project for the automation of HR processes based on big data. This solution optimised the work of the unit and improved the efficiency of employees.

WorkForce Management is a tool that uses a variety of sales data (customer traffic, sales seasonality, time spent on customer service, etc) to set the most effective work schedule for retail chain employees. It allows the company to increase the bonus part of income for employees working during hours with the highest customer traffic, to free up part of the time of the managers previously spent on scheduling, to take into account all the preferences of employees for organising their working time and to find the optimum ratio of the company's payroll and revenue.

As a result of the project, the waiting time in queues for customers was reduced by almost 3%, salary per employee increased by 10% on average, and their work load decreased by 2%. One of the main results of the system is RUB 500m saved in payroll costs in 2018.

The project was nominated for the WOW!HR 2019 business award in the category "HR Hero".

## TRAINING AND EDUCATION

In the modern world, and especially in the digital sphere, lifelong learning is a must, therefore MTS provides a lot of opportunities for each employee to constantly develop their core competences in both professional and personal areas.

MTS Corporate University offers compulsory and optional training, as well as materials for optional study on the basis of the "Virtual Academy" with more than 2,000 online courses in various fields.

In order to implement the new digital strategy of MTS, a number of relevant online programmes on the basics of machine learning and decision-making based on big data were launched in 2018, and a School of Business Coaches was created to enhance the competences of the training staff.

78%

**OF MTS EMPLOYEES PARTICIPATED IN DISTANCE LEARNING IN 2018**



### MTS CORPORATE UNIVERSITY FOR BUSINESSES AND SCHOOLS

The accumulated expertise of MTS in staff training and HR development allowed the company to offer the market high-quality educational products in offline and online formats. In May 2018, MTS Corporate University received a license for educational activities, and its first clients were large corporations and state universities, including BPGC, MiG, Gazpromneft, Gazprombank, SIBUR Holding, Nissan Russia, Credit Europe Bank, NSPK and others.

In 2018, MTS also launched the Smart University interactive educational platform, which helps students prepare for the Unified State Exam (USE) in English and maths. An individual programme is developed for each student using a special algorithm, and the lessons are conducted via video calls, providing the opportunity to study anywhere and any time. It is planned to develop online courses in other subject areas in the future.

RUB4.17 m

**EDUCATIONAL SERVICES PROVIDED BY MTS CORPORATE UNIVERSITY IN 2018**

For several years now, MTS has been implementing social educational projects in the area of digital and mobile literacy for primary schoolers and retirees:

- ▷ Over 7 years, more than 400,000 students in 40 regions of Russia participated in the project Children on the Internet. In 2018, interactive exhibitions Children on the Internet and related lessons were held in the regions of the Russian Far East: Khabarovsk, Komsomolsk-on-Amur, Yuzhno-Sakhalinsk, Petropavlovsk-Kamchatsky, Magadan and Primorsky Krai. Offline events were attended by over 12,000 children, parents and teachers. In 2018, active support for the Children on the Internet project was provided by the regional ministries of education, ministries of culture and public organisations.
- ▷ More than 2,000 retirees have been trained in the Mobile Academy programme over 2 years, and, according to MTS research, 75% of them already use mobile Internet almost every day.

In 2018, the company launched a new educational project World of Knowledge with MTS for foster children from social institutions throughout Russia. The project includes workshops, a lesson on safe internet usage and Virtual Planetarium – a next-generation mobile cinema with VR headsets creating the effect of complete immersion, which allows children to quickly absorb information and facilitates deep perception of knowledge. In 2018, children in 13 regions of Russia watched exciting films about the Sun.

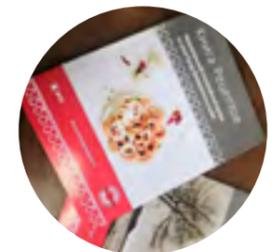
## CORPORATE VOLUNTEER WORK

The corporate volunteer movement A Gift of Kindness unites more than 7,000 employees of MTS who want to be useful to society.

Volunteers support underprivileged children, WWII veterans and retired workers of the telecom industry, and take part in MTS's social events for Victory Day, Children's Day, Knowledge Day and New Year's Eve, as well as events of Sistema Charitable Foundation and Detsky KinoMay. The largest federal volunteer projects that cover all regions of the company's operations are The Tango of Victory, MTS Green Express and Christmas Trees for Children.

To celebrate the anniversary of the Victory in the Great Patriotic War, the company launched a new project War Buddies in 18 regions of Russia, which included a historical and educational quiz "The war... What do we know about it?". The project was attended by more than 450 employees, partners and customers, as well as more than 100 war veterans.

Another new federal volunteer project was Cultural Code. Its main goal is to preserve the cultural values that are unique to local communities in MTS's regions of operations and to support the best local social initiatives. The project involved 1,500 volunteers from 18 regions of Russia. Cultural Code won the HR brand award – one of Russia's most prestigious competitions in the area of HR – as the best socially conscious project in the "Big Heart" category.



700+

**EVENTS WERE HELD BY MTS VOLUNTEERS IN ALL REGIONS OF RUSSIA IN 2018**

# High technology



Investments in the high-tech sector are one of the key priorities of Sistema's strategy; its portfolio includes a number of large Russian research and production enterprises conducting diverse research, development, production and educational activities that contribute to the emergence of advanced technological solutions for different industries and to higher safety and comfort of life. The Corporation has centres of excellence and high-tech production sites in such high-potential areas as microelectronics and radio engineering, information, space and unmanned technologies, and automated monitoring, control and decision-making systems. The Group's companies actively share their expertise with interested parties, i.e. private and public customers, and make a great contribution to the development of modern engineering education in Russia, which is necessary to build a "smart" economy.

**JSC RTI** is one of Russia's largest private research and production concerns, which is a developer and manufacturer of high-tech products and infrastructure solutions using radar and microelectronic technologies. The company sees its social mission in creating an intelligent and secure future. RTI's efforts are aimed at using technology for the benefit of people in an ever-changing world. The Group is developing a scientific and technological basis for the long-term future, and its "smart" products help ensure peace, stability and safety.

**Mikron Group<sup>1</sup>** is the largest producer and exporter of microelectronics in Russia and the CIS. It operates on the territory of the innovation cluster in Zelenograd. The Group is the technological leader in the Russian semiconductor industry and one of the top five microelectronic enterprises in Europe. Mikron is engaged in design and manufacture of integrated circuits, as well as development and supply of system solutions for the Internet of Things based on domestic electronic components and software products. The company sees its task in creating modern, reliable and safe hardware components for the development of a digital economy based on import-substituting technologies.

**Kronstadt Group** is one of the leading private high-tech enterprises in Russia investing in the development of unmanned technologies and robotics. More than 10 years of experience in the development and operation of UAV systems, extensive intellectual resources and modern technologies allow the company to set ambitious goals for creating comprehensive solutions for the use of unmanned systems in the interests of various industries. Relying on its own R&D and using as much domestic components as possible, the company helps to ensure the country's technological independence and to create a civilian market for unmanned aircraft.

**THE CORPORATION'S PORTFOLIO INCLUDES MORE THAN 20 HIGH-TECH INDUSTRIAL ENTERPRISES AND RESEARCH AND DESIGN INSTITUTES LOCATED IN MOSCOW, ST PETERSBURG, Yaroslavl, DUBNA, Voronezh, Saransk, Veliky Novgorod and Vladivostok, as well as an assembly plant for integrated circuits in Shenzhen and sales offices in China and Taiwan.**

<sup>1</sup> Since July 2019, it has been included in LLC Element, the joint venture of Sistema and Rostec State Corporation in the area of microelectronics.

Research and development, innovative solutions to industrial and social problems, high-tech products for the digitalisation of the economy and people's living environment



## SCIENTIFIC, TECHNOLOGICAL AND PRODUCTION POTENTIAL

### RTI: RADAR SYSTEMS, TECHNOLOGY AND INFORMATION

Advanced research and new developments are an important condition for the development of Industry 4.0 and the basis for competitiveness of both individual companies and the country's economy. This is why Sistema's high-tech assets pay close attention to R&D, helping to narrow the gap between Russia and the world's technology leaders in terms of investment in R&D.

RTI Group, which specialises in radio engineering, electronics and integrated communication and security systems, invests in R&D almost 20% of its annual revenue and also acts as an R&D contractor for external customers. R&D is crucial for RTI's product portfolio. The main area of the company's scientific and technological activities is the creation of high-tech ground-based information tools for aerospace surveillance. Over the past few years, the company has replaced more than 20 imported components, developed over 5 basic technologies for creating advanced components of radio equipment, mastered the production of the latest optical components and is developing innovative solutions for building RF-photonics systems.

The company's research activities are carried out primarily on the basis of the Mintz Radio Technology Institute and the Research Institute of Long-Range Radio Communications (NIIDAR). In 2018, the company was one of the initiators of the creation of a centre of excellence in the area of radio frequency photonics on the basis of National Research Nuclear University MEPhI and OKB Planeta.



### DEVELOPMENT OF INDUSTRIAL COOPERATION IN THE SPACE INDUSTRY

On 6 August, the Yaroslavl Radio Factory (RTI Group) launched high-tech production of payload modules. This is the largest investment project for RTI in recent years – more than RUB 3.5bn have been invested in equipment and assembly shop. In two years, the assembly shop was completely rebuilt, the mechanical and assembly facilities were upgraded, and cooperation chains were established with specialised research institutes and production enterprises. There is an ongoing process of expanding partnership with the international leader in the space industry Thales Alenia Space, which will allow the enterprise to both strengthen its position in the domestic market and develop exports of space equipment in the future. After the commissioning of the new production facility, the company becomes one of the key links in the production chain for creating advanced spacecraft in the interests of Roscosmos State Space Corporation, with which Sistema signed an agreement in August 2018 for the creation and development of a space technology cluster and specialised enterprises and educational institutions in the Yaroslavl region.

### RESTORATION OF THE RADIOPRIBOR PLANT IN THE FAR EAST

In 2018, RTI managed to recover from the crisis the Radiopribor plant in the Far East, which had successfully worked in the aircraft and shipbuilding market in cooperation with leading Russian design bureaus for more than 70 years but faced a difficult financial situation in 2014. Together with the administration of the Primorsky Krai, RTI developed a strategy to retain highly qualified personnel and restore unique production by creating there a separate branch of the Dubna Machine Building Plant (part of RTI Group), which was the main customer of the Radiopribor plant. As early as September 2017, the first 206 people were hired by the new production facility of the Dubna plant in Vladivostok. By the beginning of 2018, another 370 were hired, most of whom were former employees of Radiopribor. Thus, the total number of employees exceeded 50% of the estimated headcount for the planned workload of the enterprise. The new factory workers began to receive wages on time and in full. To start the operation of equipment which was idle for a long time, the company organised repair, maintenance and setup work and began purchases of necessary components and materials.



## HIGH-TECH COMPANIES



JSC RTI

radio engineering, integrated communication and security systems, and drive technology

**Types of products:**

- ▷ radar stations
- ▷ communications, emergency and spaceborne equipment
- ▷ information and analytical systems and automated control systems for complex processes

**Key competences:**

- ▷ performance indicators of organisations
- ▷ audio-video surveillance systems for quick response to emergencies, crime prevention and safe streets
- ▷ comprehensive solutions in the area of information security

RUB4+ bn

INVESTMENT IN 2018

32

INTELLECTUAL PROPERTY ITEMS AND 7 APPLICATIONS FOR THEM REGISTERED IN 2018

MIKRON GROUP

manufacture and export of integrated circuits and semiconductor devices

PJSC MIKRON

JSC VSP MIKRON

JSC SVETLANA SEMICONDUCTORS

**Types of products:**

- ▷ power management microchips
- ▷ discrete semiconductor devices
- ▷ microcontrollers for smart cards
- ▷ RFID products
- ▷ the Internet of Things

**Key competences:**

- ▷ automation of asset accounting
- ▷ distribution control
- ▷ control of goods turnover and prevention of counterfeit goods
- ▷ RFID-based automation

#1

CHIP MAKER IN RUSSIA

54%

OF RUSSIAN MICROELECTRONICS EXPORTS

20+

NEW PRODUCTS EACH YEAR



KRONSTADT GROUP

simulators and training systems, unmanned systems and robotics, airborne systems and equipment, and digital cartography

**Types of products:**

- ▷ interactive automated training systems for various industries
- ▷ software for UAV systems
- ▷ GLONASS/GPS satellite navigation systems
- ▷ navigation databases, as well as terrain and obstacle databases
- ▷ automated control systems
- ▷ geospatial information and mapping systems

**Key competences:**

- ▷ full cycle of development and production of unmanned systems
- ▷ development and production of modern integrated automated teaching aids
- ▷ creation of modern interactive solutions for culture, education and patriotic upbringing
- ▷ digital cartography and creation of complex geographic information systems and integrated solutions for providing geospatial information
- ▷ development and implementation of automated control systems

~RUB3 bn

INVESTMENT IN 2018

42

INTELLECTUAL PROPERTY ITEMS AND 35 APPLICATIONS FOR THEM REGISTERED IN 2018



NIIME

one of the largest complexes in Russia for research in the area of micro- and nanoelectronics and for development and manufacture of semiconductor products

FUNDAMENTAL AND EXPLORATORY RESEARCH: non-volatile memory, advanced VLSI technologies and functional electronics

APPLIED DEVELOPMENTS: development of technological processes and new technologies for manufacturing integrated circuits, microelectronic modules, new methods for integrating digital and microwave components

**Key competences:**

- ▷ developments in the area of semiconductor physics
- ▷ creation of new physical principles of non-volatile memory
- ▷ creation and testing of models of nanoelectronic components and effects of radiation

**Types of products:**

- ▷ EEPROM – development of technology using non-volatile memory
- ▷ CMOS – development of technologies for a wide range of applications
- ▷ SiGe BiCMOS – development of technologies for GPS/GLONASS, Bluetooth, Wi-Fi, WiMAX, LTE, fibre-optic communication systems, digital television and other microwave applications.

**Key competences:**

- ▷ IC prototyping services
- ▷ chip testing
- ▷ design of integrated circuits and RFID circuits
- ▷ development of firmware for smart cards based on own and partner microcontrollers
- ▷ supply of IP blocks for various purposes

400

EMPLOYEES OF NIIME

7

EVENTS OF THE SCIENTIFIC COUNCIL OF THE RAS AT NIIME IN 2018

### NIIME AND MIKRON: NANOTECHNOLOGY AND RADIO FREQUENCY IDENTIFICATION

Located on the territory of the special economic zone Technopolis Moscow, the enterprises of NIIME and Mikron Group form one of the largest complexes in Russia for research in the area of micro- and nanoelectronics and for development and manufacture of semiconductor products.

Mikron Group has set up a complete production chain from chip development to the final product, which allows it to produce the entire range of high-tech products and solutions for the mass market: RFID chips and tags, SIM cards, transport and bank cards with a chip, and secure microchips for social cards and government-issued IDs.



“As global practice shows, microelectronics fuels at least a dozen of other industries, such as power generation, the chemical industry, the gas industry, and non-ferrous metallurgy, which includes aluminium smelting for antenna production. This means that our evolution in close interaction with partners can really promote industrial growth and prompt the opening of factories and operations in other fields.

**GULNARA KHASYANOVA**  
CEO of Mikron

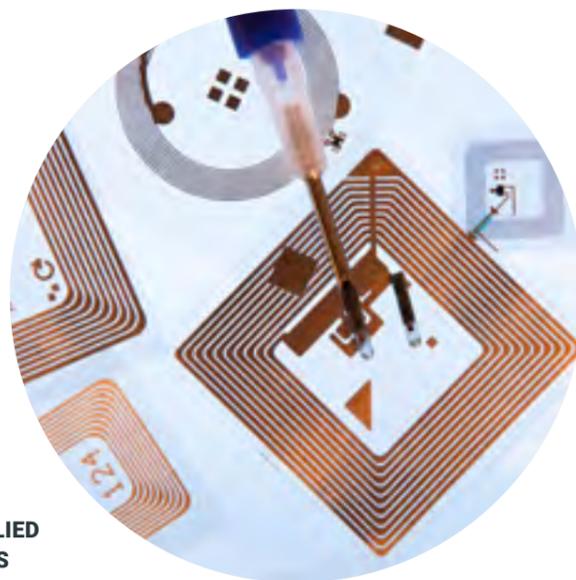
### DIGITALISATION IN WORLD-CLASS SPORTS

The 2018 FIFA World Cup swept across 11 Russian regions and attracted 1.5m visitors from all over the world. Absolute safety and mobility of guests was among the host country's top priorities. It was in no small part achieved through the use of fan IDs, a solution first applied in world-class sports events during the 2014 Olympic and Paralympic Games in Sochi.

The identification system used is a fully Russian solution protected and enabled by a bar code and an RFID tag produced by Sistema's arm Mikron.

The radio-frequency identification technology underlying the fan ID is fully automatic, the RFID tags are tamper-proof, and tag-reading at stadium entrances is a matter of seconds. For the entire duration of the World Cup, fan IDs also qualified as multiple-entry Russian visas.

Now used all over the world, fan IDs are a user-friendly and practical means of attendee identification that precludes malevolent intrusions and ensures a high degree of safety in crowded places. It takes the organisation of events to a whole new level and signifies an important step towards the digitalisation of world-class sports.



2+ m

**RFID TAGS WERE SUPPLIED  
BY MIKRON FOR FAN IDS**

### DRONE AND MULTIMEDIA TECHNOLOGY



Kronstadt Group specialises in the development of unmanned aerial vehicles (UAVs) with strong civilian potential, as well as hi-tech products and solutions required for the design, testing, and safe operation of sophisticated technology for air, marine, and ground applications, as well as multimedia solutions for training courses and museum exhibitions.

Sistema Group companies are always in touch with each other, looking for potential synergies to be gained from cross-application of products and solutions. Two such applications (in the power generation and timber industries), both pursued from 2017 on, came to a fruition in 2018.

In October of 2018, Kronstadt Group presented The Platform, its last-generation geographical information system, along with special UAV-based firmware, at the Russian Energy Forum in the city of Ufa. Kronstadt Group and BPGC used the system for aerial photography of high-voltage power transmission lines in various districts of the Republic of Bashkortostan. In August of the same year, the contenders and spectators of the 4th Russian Championship The 21st Century Lumberman witnessed flights of special drones showcasing impressive capabilities of remote monitoring and aerial photography to manage forest exploitation. The pilot project was born of collaboration between Kronstadt Group and Segezha Group.

### TALENTS IN HI-TECH

Sistema is keenly focused on nurturing a new generation of engineers and creating effective educational programmes in the sphere. In 2018, Mikron and Sistema Charitable Foundation entered into a series of agreements with the National Research University of Electronic Technology (MIET) and other leading technological schools to educate students in the fields of the internet of things and robotics. The students will learn to design microchips and operational units, analyse the tech market, and gauge the potential prospects of specific products. Welcome at Mikron's laboratories and mentored by experts, they will engage in developing hard- and software for IoT solutions. The syllabus will also be complemented with lectures and master classes from senior executives of Russian and foreign companies. The new programme ties up schools with businesses and bridges the gap between the standard college-taught skills and actual needs of employers. Since SCF finances the training up to the tune of RUB 500,000 per student, the programme is free for all participants.

Kronstadt Group is yet another partner to an array of leading universities in St Petersburg and Moscow, welcoming some 20 undergraduate interns every year. In 2019-2020, the company is planning to launch a sweeping programme scouting for best engineering students to join the company's tech-savvy workforce and introduce scholarships for the most talented and hard-working undergraduates.

Sistema's learning initiatives also extend to secondary and high schools, with young students getting hip to modern-day technology, the latest advancements in physics and tech, and the ins and outs of the engineering profession. It's been 15 years since RTI took under patronage the Popovich Engineering & Tech School in Moscow. 2018 marked the launch of special RTI-funded classes promoting extended learning in physics, math, and computer science. The classes became available to the school's best students who passed specially designed tests in physics and math. The new highly skilled faculty propels the quality of education in the Popovich School to a par with the best vocational schools of Russia's technical universities and co-opts RTI experts as teachers of robotics.

15,000+

**EMPLOYEES AT SISTEMA'S HI-TECH BUSINESSES**

32%

**OF RTI'S TOTAL HEADCOUNT MADE UP BY YOUNG SPECIALISTS**

## SCIENTIFIC COOPERATION IN HIGH TECHNOLOGIES

JSC RTI

Kronstadt Group

NIIME / PJSC Mikron

○ **Moscow Institute of Physics & Technology***MIPT Higher School of System Engineering:*

- ▷ Applied System Engineering Programme
- Department of Intelligent Information and Radiophysical Systems:*
- ▷ Specialisation: Information, Communication, and Computation Systems & Technologies (bachelor degree course)
- ▷ Specialisation: Radar & Control Systems (master degree course)
- Department of Micro- & Nanoelectronics*

○ **National Research Nuclear University MEPhI**○ **Moscow Institute for Radio Technology and Electronics***Chair No 334 Long-Range Radio Communications**Lines of study:*

- ▷ antennae, radio transmitters, and radio receivers;
- ▷ data processing and transmission systems;
- ▷ digital devices and computers;
- ▷ HF, VHF, UHF, S-Band radio systems;
- ▷ mathematical modelling & programming

○ **Moscow Aviation Institute**○ **Bauman Moscow State Technical University**○ **Ogarev Mordovia State University***Chair of Radio Technology*

- ▷ Module: Development and Diagnostics of Radio Engineering Systems

○ **Demidov Yaroslavl State University***Digital Technology Department*○ **St Petersburg State University**○ **St Petersburg Electrotechnical University LETI**○ **St Petersburg Polytechnic University**○ **Bonch-Bruевич University of Telecommunication**○ **Moscow Aviation Institute**○ **Moscow Institute of Physics & Technology**○ **Tomsk Polytechnic University**○ **Moscow Institute of Physics & Technology***Department of Micro- & Nanoelectronics*○ **MIET National Research University**

**JSC NIIME has ongoing research & development collaborations with the following institutes of the Russian Academy of Sciences:**

- ▷ The Institute of Physics and Technology;
- ▷ The Institute of Technology and High-Purity Materials;
- ▷ Saint Petersburg Academic University: the Nanotechnology R&D Centre;
- ▷ The Institute of UHF Semiconductor Electronics;
- ▷ The Institute of Microelectronics Technology and High-Purity Materials;
- ▷ The Scientific Research Institute;
- ▷ The Saratov Branch of the Kotelnikov Institute of Radio Engineering and Electronics;
- ▷ The Institute of Micro- and Nanoelectronics (Nizhny Novgorod);
- ▷ The Institute of Semiconductor Physics;
- ▷ The Nikolaev Institute of Inorganic Chemistry;
- ▷ The Kurnakov Institute of General & Inorganic Chemistry;
- ▷ The Kharkevich Institute of Communications Research.

## SAFETY TECHNOLOGY



## SAFE CITY

RTI supplies solutions both to federal agencies (such as the Crisis Management Centre of the Russian Emergency Ministry) and their local arms (the ministry's offices in Mordovia and the Tyumen and Yekaterinburg regions), while also being involved in the organisation of local crisis management centres in matters relating to civil defence and prompt notification of residents about potential threats and emergencies, including those in crowded places. RTI's subsidiary NIIDAR is currently working on a miniature model of a security check area for railway stations, airports and public gathering places, enabling remote detection of weapons and other potentially hazardous or prohibited items.



## TRANSPORT SECURITY

In May of 2018, Mikron entered into an agreement with the Moscow Metro to set up a joint venture to engage in the development of public transport projects. The main purpose of the cooperation is to devise modern-day practical solutions for controlling passenger traffic, optimising operations, and using IT technology and the internet of things for greater transport safety.



## SAFE NAVIGATION AND RESCUE

In April of 2018 Kronstadt Group, regarded as a leading developer of comprehensive solutions for waterway infrastructures and navigation safety, presented its latest eNavigation product. The company created the Hermitage navigation testbed including the Neva and Svir rivers, Lake Ladoga, and a sizeable portion of the Gulf of Finland, which became Russia's first platform for testing the latest safety solutions for maritime and inland waterways.

The company has also received a patent for its recent world-level invention: a unique automated hydrographic trawling system that substantially improves the effectiveness and safety of navigation.

In turn, in 2018 the Sistema-owned Yaroslavl Radio Factory presented a new solution for man overboard detection that instantly alerts the vessel's crew as well as other vessels and stations in close proximity.

## NEW TECHNOLOGY FOR MUSEUMS



The support of social and cultural initiatives is yet another strand of the Corporation's activity. Kronstadt Group has been supplying equipment to various museums in Russia and abroad for more than 10 years, having implemented more than 80 projects in 10 countries and 45 cities.

2018 marked the launch of several other projects in the field. In April, a group of high-ranking guests led by the Russian president Vladimir Putin and the Moscow mayor Sergey Sobyenin was welcomed at the freshly renovated Space Pavilion of the city's iconic VDNKh exhibition park. The pavilion featured Kronstadt-made moving-base flight simulators (cockpits) with interactive games taking visitors to exciting space travels. Another hallmark of the museum is a 4D VR cinema with a seamless spherical screen, yet another product of Kronstadt Group. Kronstadt Group was also heavily involved in organising the permanent exhibition of Russia's biggest motor museum maintained by the Ural Mining and Metallurgical Company (UMMC) in Verkhnyaya Pyshma. The company devised a detailed and efficient layout of the rich collection that takes up four floors.

# Forest industry



**Segezha Group** is a large Russian vertically integrated forest-industry holding company performing a full cycle of operations that comprises forest, wood processing, and pulp & paper assets in Russia and Europe.

**22,900** ha

**OF LAND REFORESTED**

**86%**

**OF CONTROLLED WOODLAND IS FSC-CERTIFIED**

**0**

**WILD FIRES ON CONTROLLED WOODLAND IN 2018**

Segezha Group has production operations in 11 countries, supplies products to more than 100 countries, and employs over 13,000 people. It is among Russian, European, and global leaders in the production of plywood, paper sacks, unbleached sack paper, and sawn timber. In promoting advanced processing of wood (which is effectively the only fully renewable raw material out there) and reforestation of woodland for the benefit of the economy, climate, and ecosystems, the company aims for a balance of maximum economic value (achievable through state-of-the-art technology) and biodiversity, observes the current production standards, and ensures high quality of products while also adhering to the principles of responsible forest management.

2018 marked an important stage in Segezha Group's evolution in the sustainability sphere, with the company embarking on a series of cross-functional initiatives prescribed by the Board-approved corporate social responsibility strategy through 2021 (potentially to be extended through 2025) in the following key fields:

- ▷ "green" production;
- ▷ creating comfortable living conditions in Russia's forest-rich regions;
- ▷ improvement of working conditions and enhancement of the company's appeal as an employer;
- ▷ organisation of sustainable wood supply chains.

Segezha Group was the first of Russia's forest-industry operators to issue non-financial reports and among the first to participate in WWF's voluntary Russian Environmental Pulp & Paper Company Index.

## RESPONSIBLE FORESTRY

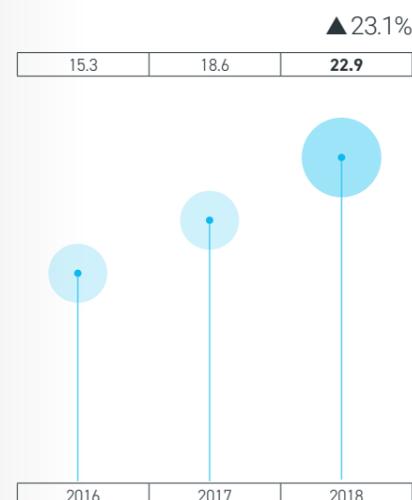
Russia operates above 20% of the world's woodland, or roughly 1.18bn ha, more than half of which qualifies as commercial. Segezha Group, which operates 1.2% of all Russian commercial (or 4.4% of all non-reserved) woodland, advocates responsible forest management in line with the principles of sustainable forestry and successfully pursues voluntary certifications, including that of the Forest Stewardship Council (FSC), where forest operators are assessed for compliance with environmental and social requirements. The FSC certificate testifies to the high quality of products, safe working conditions, and rational use of natural resources.

As Russia's largest forest user, Segezha Group always looks for a healthy balance of business activity and ecosystem restoration. The company is committed to reforestation of all of the controlled woodland while also building fire-fighting infrastructure. On top of that, it takes careful account of the transformation of animal habitats and the state of water, soil and unique vulnerable landscapes, with harvesters and loggers always steering clear of such areas. Demarcation of logging areas factors in biotopes, water conservation zones, seed groups, immature woods, and endangered tree and shrub species.

Sustainable production and consumption in harmony with nature



## REFORESTATION VOLUME, K HA



Segezha is heavily involved in the solution of one of the hottest issues of the Russian Forest Sector Development Strategy, improvement of the efficiency of forest exploitation<sup>1</sup>. The adoption of the intensive forestry model will jack up the profitability of the industry, guarantee forest reproduction, increase the industry's contribution to the nation's social and economic development, and promote sustainable forest exploitation and protection. In 2018 Segezha Group partnered up with St Petersburg Forestry Research Institute to devise the nationwide regulations for intensive and sustainable forest care in middle-aged forests. Upon approval of regulatory documents in 2019 woodland tenants in Karelia (the pilot region) will be able to apply the intensive forestry model in practice. Segezha Group's investment in the business reached some RUB 365m, with special machinery included.



“When it comes to forest management and reforestation, we not only comply with every requirement of Russian law but wish to walk an extra mile by adopting the Finnish intensive forestry model, which is the most advanced and productive of today's approaches in the industry. More than just a way to process wood, intensive forestry is about creating jobs, producing what the market really needs, and upgrading the quality of forest vegetation, even beyond its natural 'virgin' condition.”

**MIKHAIL SHAMOLIN**  
President of Segezha Group

**REFORESTATION IN KARELIA AS WELL AS THE KRASNOYARSK, ARKHANGELSK, VOLOGDA, AND KIROV REGIONS WAS PERFORMED IN 2018 ON AN AREA OF**

**22,900** ha,

**WHICH IS 25% GREATER THAN IN 2017**

**INVESTMENTS IN REFORESTATION REACHED SOME**

**RUB55.7** m,

**4% UP FROM THE PREVIOUS YEAR**

## PARTNERSHIPS AND SOCIAL WELL-BEING IN LOCAL MARKETS WHERE SEGEZHA OPERATES

Segezha Group's success in achieving strategic goals depends on the social and environmental stability of the regions where it operates. The company always aims towards open interaction with local administrations in the spirit of give and take. Underlying the synergistic relations are cooperation agreements setting out priority investment projects, woodland to be provided, and tax and other benefits for the company, as well as Segezha's firm commitments towards the communities concerned.



### THE COMPANY'S CONTRIBUTION TO THE IMPROVEMENT OF LOCAL STANDARDS OF LIVING IN 2018:

- ▷ jobs for local communities => **2,600 FTEs**
- ▷ investment programmes => **RUB 7bn** invested in fixed assets
- ▷ "umbrella" charity projects (both on a standalone basis and in cooperation with Sistema Charitable Foundation): some **RUB 25m** invested in key fields, such as sports, environment, education, and urban infrastructure;
- ▷ road construction (400 km completed) and utilities: **RUB 868m** invested in local heat and water supply only.

Segezha Group is interested in the long-term sustainable development of regions it operates in and keeps community needs in mind along with economic and environmental considerations. The company's geographical footprint encompasses 6 monotowns more than a half of which depend on the company's operations for livelihood. Aiming to improve the local standards of living, Segezha Group works towards the diversification of local economies, creation of jobs, enhancement of the quality of urban infrastructure, and attraction of new investments.

The company's contribution to the development of specific regions goes beyond the revenue bases of local budgets, enabling a raft of social and charitable endeavours.

#### LOCAL "UMBRELLA" SOCIAL PROJECTS



Segezha has donated roughly RUB 75m to charity projects over the past three years. Among the many "umbrella" projects is "Living Cities", an initiative where Segezha provides eco-friendly wooden structures and street furniture for public spaces in the communities where the company operates. The project was started in Vologda, the home town of Segezha's wooden houses arm Sokol Woodworking Plant, when the company took part in a local urban development workshop by providing the requisite building materials and erecting 3 outdoor structures based on sketches done by young architects.

#### CAPACITY EXPANSION, REDUCTION OF ENVIRONMENTAL IMPACT, AND NEW JOBS

Acting on a cooperation agreement signed with the Kirov region, Segezha Group is pursuing a large-scale investment programme to upgrade Vyatka Plywood Mill, which in 2018 commissioned a state-of-the-art line to produce large-size birch plywood widely used in a variety of industries (housing construction, furniture manufacture, public transportation, flooring, packaging, etc).

The initiative has already doubled the business's output.

Alongside modern-day equipment from leading European makers, the plant uses special boilers that recycle bark waste, supply heat power for production needs, and reduce power consumption, leading to a 30% decrease in air pollution, a 20% cut in generation costs, and a 80% reduction in cost per 1 Gcal of heat.



~1,500

JOBS CREATED SINCE 2016

~RUB6.7 bn

INVESTED IN THE UPGRADE PROGRAMME



“

*The project is on our high-priority timber initiatives list. Out of more than six billion roubles invested in total, a substantial portion went towards the latest highly automated equipment. The new plant will strengthen the company's position both domestically and globally.*

**DENIS MANTUROV**

Russia's Industry and Trade Minister



“

*Our region's government will always support the initiatives of donors willing to invest in the community, infrastructure, and competitive products.*

**IGOR VASILYEV**

Governor of the Kirov region

#### DIGITALISATION OF THE TIMBER INDUSTRY

Consistent with the Corporation's general trend, Segezha has embarked on a comprehensive digitalisation project in full concordance with the 2018 governmental strategy that champions the computerisation of the national timber industry.

Vast potential for sustainable forestry (forest exploitation and reforestation planning, wild fire prevention, etc) lies in the geographic information systems. In February of 2018, Segezha Group and Kronstadt Group reached an agreement on the establishment of an automated dispatching service that relies on neural networks and artificial intelligence to control logging. The system will consolidate and process data gleaned from harvester sensors in real time. The dispatching service will be an important control tool that will serve to cut logging and transportation expenses while also boosting the efficiency of resources management.



#### INNOVATIONS ENHANCE THE EFFICIENCY AND SAFETY OF BUSINESS PROCESSES.



In 2018, Segezha Group partnered up with SAP for a digitalisation programme. At stage 1, the companies agreed to carry out pilot projects in the Industry 4.0 sphere and set some priority objectives: improving the parameters of pulp cooking at Segezha PPM in the Republic of Karelia, forecasting the quality parameters of pulp, and preventing paper breakages during the operation of the paper-making machine at Segezha PPM.

Sheet breaks present a typical problem for the industry. Threading a sheet after a breakage is a time-consuming process that causes significant downtime costs and losses in efficiency. Digitalisation aims to reduce downtime and ramp up outputs.

The partners' later-stage digitalisation plans include two ambitious concepts: a S/4HANA "digital core" and Industry 4.0 scenarios employing machine learning, the internet of things, and predictive analytics. When combined into one, these technologies will enable Segezha Group to rethink all production processes and maximise the efficiency of the management of assets, supplier relations, and workforce.

## VENDOR INTEGRITY AND PRODUCT QUALITY

While certifying its products for compliance with international quality and sustainability standards, Segezha Group promotes responsible business principles all along the supply chain and expects the same from its partners, whereby it demands that its vendors adhere to specific environmental rules and keeps tabs on their observance.

For more details on customer relations see the [2018 Report of Positive Emotions](#).

To reduce risks associated with sources of timber and/or its mixing with unacceptable materials somewhere along the supply chain, Segezha Group uses the FSC-accredited risk assessment criteria as apply to the Russian Federation along with the relevant methods of compliance control. The company operates a due diligence system (DDS) that applies to all of its suppliers and sub-suppliers of timber, which are assessed in accordance with FSC-STD-40-005 v 3-0. All leased woodlots and all FSC-certified vendors that enter into contracts with Segezha Group fall within the scope of the DDS as regards the origin of timber. The system is reviewed every year by the company's internal auditors, who work hard to continuously refine it.

## SEGEZHA GROUP'S WOODWORKING OPERATIONS ARE NOW CERTIFIED FOR PROPER SOURCING OF FSC-CONTROLLED WOOD



In October of 2018, Segezha Group's Sokol and Onega Woodworking Plants received their first FSC conformity certificates attesting to proper procedures being in place when vetting the sources of wood that is used in the plants' production operations. Up until that moment, the certification had applied to Segezha Group (the management company) as the sole source of raw wood.

Segezha WP in the Republic of Karelia is also preparing to receive a similar certificate. The FSC STD-40-005 (V3-1) certification will allow the plants to act independently and speedily when assessing new materials and accepting them for processing.



**ALL OF SEGEZHA GROUP'S RAW MATERIALS SUPPLIERS ARE VETTED BY AUTHORISED THIRD PARTIES ALL ALONG THE SUPPLY CHAIN, WHICH RULES OUT THE USE OF POACHED TIMBER.**

## SEGEZHA GROUP'S POSITIVE IMPACT ON THE SUPPLY CHAIN



Biofuel production is Segezha Group's crucial contribution to environmental protection. In December of 2018, the company commissioned a state-of-the-art plant designed specifically to produce ecologically pure biofuel in the city of Lesosibirsk.

The launch of the pellet production line will enable Segezha Group to optimise the utilisation of wood by transforming the by-products of timber sawing into fuel pellets and heat power. In December of 2018, the Lesosibirsk operation shipped its first batch of biofuel to European customers.



In March of 2018, Segezha Group signed a three-year strategic partnership agreement with Eurocement Group. In pursuit of environmental sustainability, the parties agreed upon a new extra-strong moisture-resistant packaging solution for Eurocement's products. The new packaging will support the global practice of phasing out plastic bags, which will increasingly give way to brown paper bags.



*"We are consistent in pursuing the environmental sustainability of our packages and encourage our partners to increasingly switch to the eco-friendly unbleached paper packaging. We are happy to see the conscious leaders of the Russian building materials industry follow global trends."*

**ANDREY BROTSMAN**  
Segezha Group's Vice President for Commercial Operations

# RUB816.6 m

**INVESTMENT IN THE PELLET PRODUCTION LINE**

# 70,000 tones

**PRODUCTION CAPACITY PER YEAR, WITH ALL OF THE PRODUCTS INTENDED FOR FOREIGN MARKETS**



# Healthcare and pharmaceuticals



~8.5 m

**VISITS PER YEAR ACROSS THE MEDSI CHAIN**

3,300

**OF HIGHLY SKILLED DOCTORS**

30+

**NEW DRUGS UNDER DEVELOPMENT AT BINNOPHARM**

14

**NEW DRUGS REGISTERED IN 2018**

Sistema is becoming an ever stronger presence in the health universe, being the owner both of Russia's largest private provider of a full spectrum of medical services from initial consultations and emergency care to hi-tech diagnostics, advanced surgeries, and rehabilitation, and of a leading full-cycle pharmaceutical producer with an in-house R&D department. As advocates of health consciousness and care for the human capital, Medsi and Binnopharm provide Russians with high-quality medical care and affordable latest medicines.

#### MEDSI:

- ▷ 25 in and around Moscow (including 2 pediatric clinics, 2 hospitals, and 3 clinicodiagnostic centres)
- ▷ 13 clinics outside Moscow
- ▷ 2 health resorts
- ▷ 50 centres of excellence
- ▷ Ambulance service
- ▷ Home care service
- ▷ Medical wellness

#### BINNOPHARM:

- ▷ 2 state-of-the-art pharmaceutical plants just outside Moscow
- ▷ development and production of recent medicines in a variety of specialisations: pulmonology, neurology, cardiology, gastroenterology, and infectious disease

## INTEGRATED MEDICAL PLATFORM DEVELOPMENT

Meds'i strategy provides for creating a nationwide patient-oriented P4 medicine platform, i.e., a vertically integrated healthcare system with uniform standards of care, patient safety, and service quality. Medsi is pursuing a wide-scale investment programme that comprises the construction of new clinics and installation of the latest tech solutions for high-precision diagnosis and surgeries.

The company aims to further expand its geographic footprint and strengthen integration between clinics as regards "patient routing" and referrals, from initial screening to hi-tech care, including hospital admissions of patients referred from non-Moscow clinics. Intra-group referrals already serve to give patients from clinics outside Moscow access to hi-tech care in the nation's capital, including services covered by the state-funded obligatory medical insurance (OMI). An important tool in the process is the single information system, where a local doctor can enter all data about a patient's health condition and, should a surgery be needed, refer them to a clinicodiagnostic centre or a hospital in Moscow, which have ready access to such patient's records. On top of that, Medsi actively sends its best doctors from Moscow to clinics in other cities to hold consultations, examine patients, and prescribe treatments in Moscow, as well as share expertise with local doctors. Medsi's competencies in the area of hi-tech care are confirmed through the company's participation in a government-subsidised programme where Medsi provides hi-tech services to patients from Moscow, the Moscow region, and elsewhere in Russia.

Medical advances, development of last-generation medications, evolution of the Russian healthcare system, and nation-wide drug supply



“

*Looking back at 2018, I can safely say that Medsi made strides in getting entrenched in the Russian market of private healthcare and broadened the spectrum of hi-tech services provided. We set up 50 centres of excellence in the most sought-after specialisations, launched the SmartMed app, started a Patient Care Centre, and set in motion the fund-raising programme dubbed Thank You Medsi!. The growth in patient visits is a product of well-coordinated work of all departments and especially of the efforts of our ever-strengthening medical team, with new doctors increasingly choosing us as the employer that can provide them with latest technology along with opportunities for skills upgrading and scientific research. We place a high premium on innovative treatments and on refining service quality, a task that requires regular assessments of the doctors' work. We analyse every complaint following a very rigorous algorithm and let go anyone who is rude or unethical. We require that our doctors follow international standards of conduct and aim for building doctor-patient partnerships, with doctors explaining the treatment and diagnostics plans and patients following them in a conscious and responsible manner. Our primary objective is in the development of preventive care and health awareness.”*

**ELENA BRUSILOVA**

President of Medsi Group

## INTERNATIONAL QUALITY AND SAFETY STANDARDS

Meds'i is a leader in Russian private healthcare, which dictates the highest standards of service that shape the health and well-being of a multitude of people, both Russians and foreign citizens, a category of patients that the company specifically addresses through a dedicated department established in early 2019.

In 2018, Medsi embarked on the adoption of international standards of quality and safety of care according to JCI (Joint Commission International), the world's most reputable accrediting organisation in healthcare. As JCI standards are broader than existing Russian standards that apply to the organisation of medical care, their implementation is a fundamental step and a commitment to maintaining a system of continuous improvements.

A key factor to successful JCI accreditation is staff engagement and each employee's commitment to a culture prioritising patient safety. Provision of a whole suite of services, involving multiple specialists, advanced technology, and potent drugs, is objectively associated with a risk of errors. For their maximum mitigation, JCI standards require that any incidents that brought about or could have brought about a health hazard be meticulously registered and parsed. The so-called "incident report system" allows clinic employees to describe (anonymously, if they so choose) relevant situations to prevent similar incidents in the future. This practice is already in place at Medsi. The reports of the type translate into productive feedback and constructive analysis of each challenging situation.

The ClinicoDiagnostic Centre Krasnaya Presnya became Medsi's first clinic to refashion work processes to meet the JCI accreditation standards, with the accreditation certificate due at the end of 2019. All of Medsi's new clinics that are currently under design and construction will also be in compliance with international requirements.

**JCI standards** are specialised standards of quality of medical care. Their implementation testifies to a high level of maturity and culture of medical organisations. JCI accreditation standards are arguably the most sophisticated standards existing in the industry as they go beyond strictly medical procedures to encompass the entirety of a clinic's operations, including procurement, fire safety, and many other aspects.

RUB5 bn

**INVESTMENTS OF MEDSI IN FIXED ASSETS OVER THE LAST TWO YEARS, WITH YOY GROWTH IN CAPEX (2018 VS 2017) EXCEEDING 22%**

+40%

**GROWTH OF MEDSI'S FOREIGN PATIENTS BASE IN 2018 YEAR-ON-YEAR. MOST OF THE PATIENTS COME FROM CHINA.**



In December of 2018, Sistema and VTB acquired one of Russia's leading pharma companies, **OBL Pharm**, with a view to combining it with Binnopharm into a pharmaceutical holding company that will operate four factories in and around Moscow and be among the nation's Top 10 commercial drug producers.

## TELEMEDICINE IN ACTION: HEALTHCARE DIGITALISATION



The development of telemedicine technology opens up access to high-quality medical care for a vast array of patients, including those in small and far-flung communities all across the country. Telemedicine is now at its most popular in Europe, the US, Canada and China, where sometimes it poses the only opportunity for patients from remote and isolated communities to receive prompt medical care. Physical remoteness from healthcare providers directly determines the relevance of such services in Russia. The sheer vastness of the country along with an uneven distribution of health professionals make telemedicine one of the most promising avenues of development for the national health system. Telemedicine is expected to be in high demand both in large cities where people grow increasingly accustomed to online services and in out-of-the-way regions where good doctors are few and far between.

With the adoption of the "telemedicine law" in 2018 authorising doctors to arrange case conferences, provide online consultations, and remotely follow up patients' health parameters, the rich competencies of Medsi doctors, their expertise in using advanced therapies, and the vast spectrum of doctor specialties became even more accessible to patients. A strategic partnership of two Sistema assets in pursuance of a digital health project translated into the launch of the telemedicine platform SmartMed in April of 2018, where MTS's latest technology meets the medical acumen of Medsi making medical care more accessible, speedy, and user-friendly.

Slashing doctor-patient distance and enabling an online resolution to matters that do not require a patient's physical presence, the SmartMed app offers online consultations along with a simple way to schedule doctor appointments, call an ambulance, and store medical records in a protected cloud environment (#CloudMTS) from where they are easily retrieved via gadgets. The app also provides up-to-date information about Medsi clinics and doctors, logs on- and offline consultation requests, and stores all of the medical records of each specific patient (both saved by such patient or sent by the doctor), including prescriptions and test results.

The telemedicine technology aims to cultivate a generally responsible pro-active attitude towards one's health, promote the use of innovations for health control, and prevent potentially harmful self-medication. Telemedicine's vast potential lies in the ever-growing proactive involvement of patients in the treatment process. As many Russians struggle to schedule a doctor appointment even when it is badly needed, 55% of respondents say they are open to using remote consultations. Providing an easier way to get medical care, telemedicine creates positive patient experience and serves to get around the barriers that stand in the way of receiving proper medical care when it is really required.

Nearly 3,500 remote services have been provided since the active launch of the service in the spring of 2018 to date (with the consultations number up by more than 7 times in the first half of 2019).

The company sees a lot of potential in using telemedicine in rehabilitation and remote monitoring of patients' vital signs, including follow-up after discharge from hospitals, where doctors stay in touch with convalescents, monitor their health parameters, issue recommendations to optimise the recuperation process, and address any eventual complications in real time. Another promising application of telemedicine is "doctor-to-doctor" interactions, from case conferences to expert consultations for local doctors in a variety of specialisations, an opportunity particularly welcome in small and remote communities where doctors are scarce.

**TELEMEDICINE TECHNOLOGY CAN INCREASE THE ACCESSIBILITY OF HIGH-QUALITY MEDICAL CARE IN RUSSIA WHILE STIMULATING INDIVIDUALS TO BE MORE CONSCIOUS AND RESPONSIBLE ABOUT THEIR OWN HEALTH**

~40%

**OF RUSSIANS WOULD OPT FOR AN ONLINE DOCTOR CONSULTATION THROUGH A DIGITAL CHANNEL WHEN IN NEED OF NON-ACUTE CARE<sup>1</sup>**

~RUB30 m

**INVESTED IN THE SMARTMED TELEMEDICINE PLATFORM**

100,000+

**INSTALLATIONS OF SMARTMED APP IN 2018**

20+

**INSURERS INCORPORATED THE SMARTMED TELEMEDICINE SERVICE IN THEIR VOLUNTARY POLICIES**

~40%

**OF USERS COME BACK FOR A FOLLOW-UP ONLINE CONSULTATION**

<sup>1</sup> According to [Philips's 2019 Future Health Index](#).

## CONTRIBUTION TO THE NATIONAL CANCER CONTROL STRATEGY

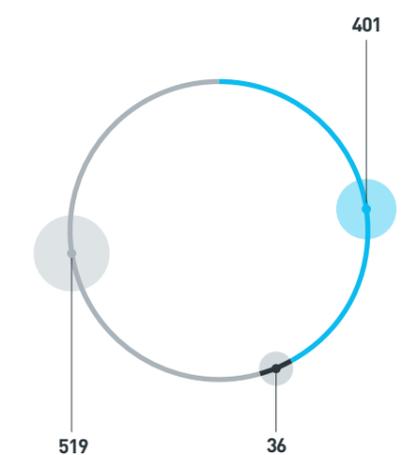
Medsi is a provider of hi-tech medical care in multiple specialties, including such socially sensitive areas as cardiac surgery, orthopaedics, gynaecology and oncology.

As a participant of the national state-subsidised hi-tech care programme, Medsi works hard to address the national task of making specialised care more accessible to cancer patients. The company has put in place an innovative early diagnosis system that encompasses over 30 types of examinations using expert-class equipment (MRI, CT, MLCT and digital radiography) and professional oncologists, enabling 2-3 cancer detections per week. It actively develops the chemotherapy department, with patients receiving high-quality immune therapy and last-generation target medications (mostly brand-name drugs coming directly from manufacturers). Medsi doctors with unique expertise and competencies in cancer treatment are actively involved in committees to develop relevant national clinical recommendations.

In 2018, the company became the No 1 private health provider in the Moscow region in terms of the volume of medical care provided to cancer patients, with more than 11,000 of such patients receiving quality care, including target medications, immune therapy, and surgeries.

Medsi also places a large premium on the rehabilitation of cancer patients. From 2017 on, the company has been in cooperation with Volnoye Delo charity foundation to further a health programme dubbed Women's Health, which includes the development of a support community for women diagnosed with cancer of the reproductive system and a volunteer movement within the community. Medsi also has a group for physical rehabilitation and psychotherapeutic support for breast cancer patients. Over 200 women receive free breast cancer screening every year, with the total number of beneficiaries of initiatives organised to date in cooperation with Women's Health exceeding 1,000.

## HEALTH PROFESSIONALS THAT RECEIVED TRAINING IN 2018



Express training courses  
Occupational re-training courses  
Thematic (certificate) training

## DEVELOPING MEDICAL EXPERTISE

As part of a strategy aiming to continuously upgrade the skills of medical staff and upscale interactions with the professional community, in addition to the Research Council, which has been bringing together the Russian medical elite with foreign specialists in various areas of medicine for the past 10 years, in early 2017 Medsi launched its very own Medical Academy to train doctors, nurses, and paramedics. The overarching goal of the project is to create an open educational platform to train doctors both from Medsi and from other health providers across the nation, promote best national and international medical practices, have health professionals hone their theoretical knowledge and practical skills in grappling with top-of-the-agenda medical problems, and teach them to use the latest hi-tech healthcare solutions.

In addition to the nine departments established in 2017-2018, the company plans to launch another six in 2019, significantly expanding the scope of specialties and ensuring a conversion of education expenses within the company.

The Academy's agenda for the near term includes obtaining a certificate to perform residency training in 29 specialisations, improving the position in scientific ratings through research and clinical trials, stepping up publications in medical journals and bolstering educational expertise in a variety of fields.

~RUB20 m

**A YEAR GOES TOWARDS FINANCING THE MEDICAL ACADEMY**

1,000+

**HEALTH PROFESSIONALS RECEIVED UPGRADE TRAINING IN 2018**

A teleconference titled Metabolic Syndrome in the 21st century: Latest Trends in Diagnostics, Treatment and Prevention linked up more than 55 primary-care physicians, endocrinologists, cardiologists, neurologists and rheumatologists in Moscow and the Albany Stratton VA Medical Centre in the US.

**MEDSI PUSHES THE BOUNDARIES OF INTERNATIONAL COOPERATION**



Introducing innovations in daily medical practices and advancing therapeutic technology in partnerships with global market leaders is among Medsi's strategic goals. With it in mind, the company has recently made a series of important steps towards upgrading the national healthcare. In 2018, Medsi signed a suite of strategic partnership agreements with Siemens Healthineers (Germany) and the pharmaceutical company Sanofi (France). Medsi's Botkinsky Hospital in Moscow is now house to a training centre for the operators of medical machines produced by Olympus (Japan). The company's plans also extend to advancing the cooperation with the major Korean health provider Severance Hospital and the Russian Direct Investment Fund aiming to create a multi-functional innovations centre in Moscow in compliance with the latest global diagnostic and therapeutic practices.

**BUILDING A PATIENT-CENTRED CULTURE**

In interactions with its key stakeholders, i.e., patients, Medsi uses a patient-oriented approach advocated by world's leading healthcare providers, built on empathy, a profound understanding of the needs and expectations of patients, and organisation of the entirety of the company's operations around the satisfaction of such needs and requirements. This approach employs systematic research of patient satisfaction and preferences regarding medical or other services from healthcare providers.

In 2018, the company came a long way towards building the best patient experience in Russia.

It launched the nation's first Patient Care Centre tasked with making objective assessments of patients' expectations and analysing their impressions of the clinics and doctors they visit. The centre identifies matters that are of most relevance to patients when receiving medical and auxiliary services and initiates changes aiming to bridge the gap between expectations and reality.

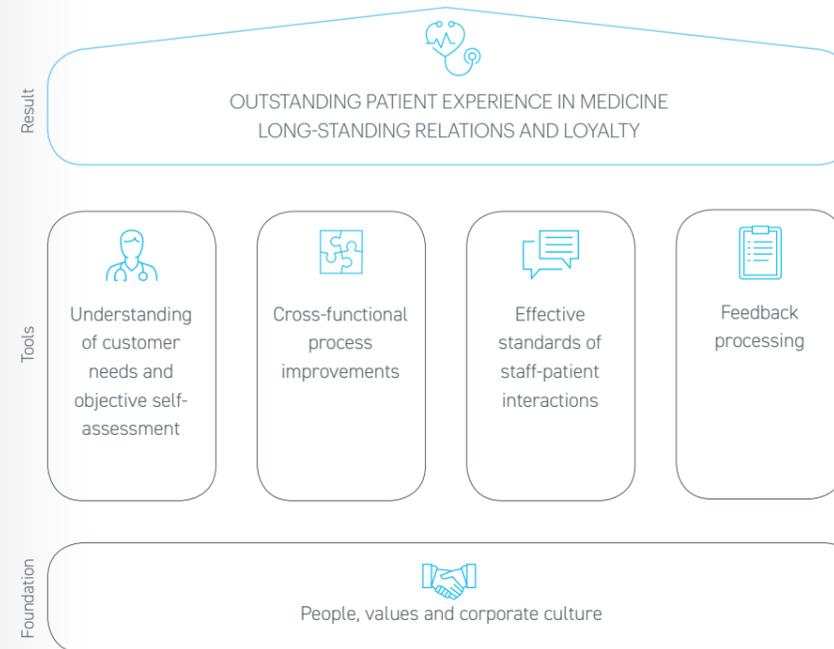
A key aspect of customer experience is communications between doctors and patients (or patients' families).

It's vital that the doctor and the patient be on the same page and that the patient have a full understanding of algorithms applied and completely trusting the clinic. That's why one of the centre's key responsibilities lies in the standardisation of communications between the medical staff and patients with a view to driving patient satisfaction.

Relations within a close circle of persons around the patient form an important convalescence factor. Since this is especially true of patients diagnosed with grave diseases, Medsi staff aim to completely surround such patients and their families with care and attention. In November of 2018, Medsi launched a service tasked specifically with supporting the families of patients with cancer, heart disease, and neurological pathologies. Such families are provided with all the necessary information about the conditions and with comprehensive support all through the therapy. Clinical psychologists help in relieving anxiety and provide professional recommendations on how to build relationships with patients and modify the family's lifestyle according to the patient's diagnosis and therapy prescribed. All consultations for patients and their families are free of charge. The Patient Care Centre was off to a busy start with the first 15 families provided help at the project's outset.



**FOR 8 OUT OF 10 FAMILIES WHOSE MEMBER HAS JUST RECEIVED MEDICAL TREATMENT, MEDSI BECOMES THE CLINIC OF CHOICE FOR SERVING MEDICAL NEEDS.**



**PROMOTING HEALTHY LIFESTYLES AND INCLUSIVITY**



The company's flagship social initiative is a comprehensive programme where Medsi's medical expertise is put to use to help specific medical projects of the company's partners (including non-profits). The educational project Be Healthy with Medsi! involves professional ambulance teams along with some 50 other volunteer doctors.

**MEDSI FRIENDS CLUB**



October of 2018 marks the start of Medsi's Friends Club, the first official patients community that brings together best doctors, Medsi patients, and anyone caring or curious about healthcare and health responsibility in a single virtual space. The Friends Club members are the first to learn about campaigns, initiatives, and events; receive updates on the prevention, diagnosis and treatment of a variety of conditions, as well as healthy lifestyle tips, from the Doctors' Blog; engage in discussions with doctors and other club members at the Patients' Forum; ask questions and make suggestions in the "Active Patient" section on how to improve the quality of services and care; and express appreciation to a specific doctor or the medical team as a whole by means of a donation to the Thank You Medsi! fund-raising service.



Medsi Friends Club introduces children to the world of state-of-the-art healthcare. Since November of 2018, the Club has organised a series of free tours to the company's clinics for more than 300 students of Moscow schools, with practising physicians letting the young guests in on what it's like being a doctor and the recent advances of the medical industry. Children are brought up to date with the novel P4 Medicine concept while also getting a unique opportunity to learn firsthand how a medical establishment works.

**35,000+**

**PARTICIPANTS OF BE HEALTHY WITH MEDSI!**

**250+**

**EVENTS HELD IN 2017-2018, INCLUDING:**

- ▷ off-site lectures, consultations and events dedicated to top-of-the-agenda medical specialties and organised at partners' offices (over 80 events a year);
- ▷ large-scale charity and sports events for non-profits and standby medical support at charity events (over 50 events a year).

Medsi is active in developing the practice of competence-based volunteerism providing free medical support and professional help to non-profit organisations catering to special-needs children and the elderly. Among the company's permanent partners are Galchonok, Downside Up, Arithmetic of Goodness, Love Syndrome, Ageing Gracefully and many other charities. Medsi's own corporate volunteer movement From Heart to Heart (which is now roughly 300 people strong) is involved in several projects pursuing the support and inclusion of special-needs children, providing regular consultations for social and charity projects and organising visits to nursing homes.

The company also provides medical support to charity sports events, including Sport Vo Blago (in support of children with Down syndrome), Patriki Running (for children with pathologies of the central nervous system) and Run Live. Another important annual event is the inclusive children's festival Galafest, where Medsi's best doctors provide general health consultations to guests, teach first aid skills and hold creativity master classes.



#### INNOVATIONS IN THE REHABILITATION OF THE ELDERLY

With its numerous launches of recent rehabilitation solutions, Medsi Group is among Russia's leaders in this much-needed area of medicine. One example is a programme pursued by Medsi in concert with the Social Security Department of Moscow and the Moscow Veterans Council, where nearly 2,000 combat and home-front veterans of the Great Patriotic War (aged 75-85 on average) were provided with free rehabilitation services at Medsi's Otradnoye sanatorium in the period from 2015 to 2018. The sanatorium's team obtained unique expertise in providing medical services to this category of patients. The sanatorium's rehabilitation department is equipped with latest robot-aided systems with biofeedback designed for the recovery of motor functions in patients with neurological and orthopaedic diseases. The use of such rehabilitation complexes contributes to better motor skills, reduces disability and makes patients more self-sufficient in day-to-day life.



≈ 350

**VETERANS RECEIVED A FREE TWO-WEEK REHABILITATION COURSE AT MEDSI'S SANATORIUM IN 2018**

3,000+

**PEOPLE VISITED MEDSI'S BOOTH AT THE GALAFEST INCLUSION FESTIVAL**

20+

**ART THERAPY MASTER CLASSES ARRANGED BY MEDSI VOLUNTEERS IN 2018 FOR CRITICALLY-ILL CHILDREN AND STAFF OF CHARITIES**

In the last 1.5 years since the launch of Medsi's cooperation with the Ageing Gracefully foundation aiming to extend the lifetime of the single elderly in nursing homes, the company has examined over 400 patients and issued recommendations for the nursing homes' staff on how to properly care for the wards. The project's strategic purpose is to change the rules of medical care applying across the nation and upgrade the prevailing standards of medical services.

2018 was the first year when Medsi started providing medical support to the Association of Dyslexic Children and Their Parents. In 2018 alone, the company launched a social information campaign and issued 100 free diagnostic vouchers for the association's members.

As a measure of resources medical support, in 2018 the company carried out advanced checkups for 100 employees and volunteers from Konstantin Khabensky's Foundation and Ageing Gracefully.



#### DRUG ACCESSIBILITY & AFFORDABILITY

Sistema's strategic goal on the pharmaceuticals market is meeting the demand for latest effective drugs, including genetically engineered and biological drugs, as well as a variety of brand-name and generic medications in a multitude of dosage forms. By investing in R&D, diversifying the product portfolio and developing partnerships with pharmacy chains, Sistema's pharmaceutical assets make a sizeable contribution to the accomplishment of some key tasks of the national pharma industry in pursuit of the development and production of high-quality, safe, accessible and affordable Russian comparables to foreign brand names, as well as the creation of innovative original drugs.

In 2018 alone, Binnopharm's investment in R&D reached nearly RUB 335m, with the company's in-house R&D department launching a number of highly sought-after drugs.

Consolidation with OBL Pharm will translate into a cross-promotion of R&D expertise, improvement in the capabilities of Binnopharm's current plants (through the addition of another two sites) and an enhancement of the product portfolio to 200 drugs, including such absolute leaders in their respective segments as Venarus (a vein tonic), Maxilac (a probiotic) and Urdoxa (a hepatoprotector).



**BINNOPHARM HAS BEEN COVERING THE BULK OF THE STATE'S DEMAND FOR HEPATITIS B VACCINE SINCE 2009, WORKING TOWARDS THE ERADICATION OF THIS CONDITION THAT IS ON THE NATIONAL PRIORITY DISEASES LIST.**

# Consumer sector



~30

**PRIVATE LABELS, A QUARTER OF WHICH ARE CLOTHING AND FOOTWEAR**

50,000+

**SKUS IN THE CHILDREN'S GOODS SEGMENT, INCLUDING MATERNITY WEAR AND BABY PRODUCTS**  
(~27% OF THE RUSSIAN MARKET)

1.5+ m

**SKUS AVAILABLE THROUGH E-COMMERCE**

20.5+ m

**ONLINE ORDERS MADE TO OZON AND DETSKY MIR IN 2018**

6,400+

**PICK-UP POINTS**

138,000

**ONLINE ORDERS PROCESSED BY OZON PER DAY IN DECEMBER 2018**

Sistema's retail assets with their extensive regional chains and powerful logistical and online infrastructures provide thousands of people with next-door accessibility to staple goods, including clothing and footwear for children and adults (under private labels and otherwise), groceries and household items, while also paving the way to the Russian market for reliable and responsible producers and vendors, both of Russian and foreign origin.

Sistema's consumer assets are the national No 1 player in the children's goods market; a major apparel brand catering to both adults and children; and Russia's leading multi-category retailer. Detsky Mir, Concept Group and Ozon have been working hard to get further entrenched in specific regional markets through expanding their retail, warehouse and selling space; broadening the geographic spread of delivery chains; enhancing the product mix; and optimising business-to-customer communication channels while adhering to the values of fair competition, transparent pricing and social responsibility.

Ambitious when it comes to the development of store chains, Detsky Mir and Concept Group have already exceeded the 300 communities mark in Russia and Kazakhstan, bringing the same product mix and store format wherever they go. A continuous expansion of the product mix and logistical infrastructure enables the online retailer Ozon, which has for years been driving the Russian e-commerce market (an industry Ozon pioneered back in 1998), to achieve record-breaking rates of growth in gross merchandise value (+73%) and total physical items sold (+85%).

For more info see [Annual Report](#).

## GOODS AVAILABILITY

To meet mass-scale consumer demand, Sistema's portfolio companies heavily invest in retail chains and logistical infrastructures. Detsky Mir's universe grows by some 100 locations each year (having reached the Far East in 2018) and is among the largest retail chains both in Moscow and nationwide. At the end of 2018, the chain numbered 743 stores in Russia and Kazakhstan, with 2019 plans yet again extending beyond the national boundaries, to Belarus.

Another Sistema-owned retailer, Concept Group, is active in 130 Russian communities and on several foreign markets (Belarus, Kazakhstan, Armenia, Azerbaijan and India), working both through its own retail chain and through cooperation with franchise and wholesale partners.

Detsky Mir achieves unfailing availability of sought-after goods throughout its retail chain via a high degree of centralisation, with a lion's share of the product mix passing the company's very own distribution centre, which in 2018 processed 90% of the chain's overall merchandise (a triple of the 2014 figure) and 100% of the goods sold online.

Another case in point, at the end of 2018 the online retailer Ozon was operating a logistical chain with warehouses whose floorspace approximated 100,000 sq m. In 2019, the company is planning to increase its fulfilment infrastructure at least by 2.0x, both to store its own merchandise to batch complex orders and to maintain operations as a marketplace. Aiming to broaden its geographic footprint, by the end of 2019 Ozon is planning to open up to 470 new pick-up points across the chain of Obuv Rossii, primarily in Siberia and in the Far East. Ozon also collaborates with other partners, such as MTS Retail and X5 Retail Group, and has a partnership agreement signed with Russian Post to deliver webstore orders to certain destinations.

A broad assortment of moderately-priced, high-quality, sought-after FMCG products

6

**COUNTRIES OF PRESENCE OF RETAIL CHAINS**

1,100+

**OFFLINE STORES AND 30M LOYAL CUSTOMERS IN THE E-COMMERCE SECTOR**



## GUARANTEED BEST PRICES FOR CHILDREN'S GOODS

Detsky Mir's social mission is best captured in its motto, A Happy Childhood for All. The company aims to guarantee its customers a vast product mix and best prices. The permanent availability of goods is ensured through a combination of tools:

- ▷ growing share of domestic products priced lower than their foreign counterparts of the same quality level;
- ▷ development of private labels enabling the company to sell goods of a guaranteed quality level at below-market prices (thanks to bypassing producer fees);
- ▷ promo campaigns, special offers for regular customers and seasonal sales;
- ▷ continuous monitoring of rivals' prices;
- ▷ development of a loyalty programme allowing regular customers to use credits to pay up to 100% of the purchase price;
- ▷ participation in local social projects in support of families with children (Moscow, St Petersburg) and underprivileged demographics, including extra discounts for holders of Muscovite's Social Cards.



*"The development of private labels and direct contracts with major international vendors allow us to sell much-needed juvenile goods at cheapest prices around, due to large production batches and disintermediation. The past year marked the launch of our new retail chain ABC with a broad variety of toys for children aged from 0 to 14, along with a pilot pet shop project."*

**VLADIMIR CHIRAKHOV**  
CEO of Detsky Mir

**IN 2018, PRIVATE-LABEL ITEMS ACCOUNTED FOR ROUGHLY**

30%

**OF DETSKY MIR'S SALES ACROSS THE BOARD AND MORE THAN**

86%

**IN CLOTHING AND FOOTWEAR**

## FRESH AND HEALTHY FOOD ONLINE



OZON works hard to reshape the Russian e-commerce market and continuously expands both the product mix and the vendor database based on customer expectations and needs. More than half of the company's customers that come to the webstore for particular products from 3-4 categories end up also buying some staple goods. Food items account for 60% of such ad hoc staple purchases and represent one of OZON's fastest-growing product categories in 2018. At the same time, residents (especially young ones) of cities with 1m+ populations (Moscow, Yekaterinburg, Kazan and Krasnodar) demonstrate a strong trend towards healthy eating. In particular, Muscovites increasingly opt for natural food of local origin. OZON has registered a visible demand for organic dairy products from Central Russia, notably the Tver and Vladimir regions.

The online FMCG market in 2018 went up 32.2% year-on-year due to a growing consumption of food items, mostly driven by the "fresh" subcategory. The frequency of online purchases in 2018 went up 21%.

OZON is ranked 2nd in the 2018 ranking of Russian online grocery delivery operators, with the total market having grown by half in just one year. OZON's "Food" category has more than doubled, with the "fresh" subcategory up more than ten times.

### BRAND MANAGEMENT: LOYALTY AND CUSTOMER SUPPORT



The 71-year-old brand Detsky Mir is not just the oldest, but also the most recognised one in the children's goods market. The company pursues permanent projects driving service level both in retail chains and in the online space, while also maintaining a high level of customer satisfaction.

### SAFETY AND QUALITY CONTROL

Both Detsky Mir and Concept Group see their biggest duty in providing customers with safe high-quality products. Both companies operate in full compliance with the Russian law On the Protection of Consumer Rights and with the national Retail Regulations and control the quality and safety of their products at every stage of their life cycles, from choosing the supplier to placing orders to layout on store shelves to customer feedback.

With juvenile goods understandably being subject to strict quality control, retailers often have to grapple with counterfeit goods that may pose a health hazard. To guarantee high quality of products, Detsky Mir directly purchases merchandise from major international and Russian producers and vendors. By developing private labels, Detsky Mir can better control pricing and closely watch the quality of materials used.

### OZON ADOPTING PAPERLESS DOCUMENT MANAGEMENT IN VENDOR RELATIONS

By starting cooperation with the electronic document management company Synerdocs, OZON has managed to speed up business processes, remove unnecessary operations from the flow chart and cut paper consumption. In its dealings with counterparties, OZON now uses electronic documents that are legally valid in all respects and admitted by the Federal Tax Agency and courts of all types.

By migrating to paperless document management, the company ticks a variety of boxes, from speeding up payments for goods and services of any description to saving office time that used to be spent on searching, preparing and signing physical documents.

### WHEN COOPERATING WITH THE WORLD'S BIGGEST CHILDREN'S GOODS MANUFACTURERS, DETSKY MIR IS VIGILANT ABOUT TEST SHEETS AND ISO CERTIFICATES THAT AFFIRM THE CONFORMITY WITH QUALITY STANDARDS EXISTING IN THE COUNTRY OF ORIGIN AS WELL AS RUSSIAN LAW.

### CHILDREN'S RIGHTS AND SOCIAL SECURITY

Sistema's biggest retail asset sees its chief social responsibility in providing the young generation with quality, safe and affordable goods. An important strand of the company's activity is charity projects aiming to improve standards of living for children, including underprivileged ones.

The company adheres to the basic principles of the Children's Rights and Business Initiative of the UN Children's Fund (UNICEF), including the eradication of child labour, ensuring children's safety at all assets and business segments of the company, fair marketing and advertising, and provision of support to local communities in the area of children's rights protection.

In launching community and charity projects, Detsky Mir strives to improve living conditions in orphanages and similar institutions while also stepping up the social engagement and creativity opportunities for the young. Detsky Mir charity projects are always open to the company's staff (whose participation translates into higher personnel engagement rates), as well as its business partners, vendors and numerous customers, whose joint efforts and donations make help stronger and broader in scale. The principal source of funding for relief programmes is donations made out of the company's net income, as well as voluntary donations to Detsky Mir Charitable Foundation established in 2004.

The total value of merchandise distributed through the Foundation for community needs in 2018 reached RUB 590m, while cash donations in the same year amounted to RUB 40m (both in the Company's funds and in funds raised from third parties). Detsky Mir's efficient social partnership model delivers heavy investments in communities while bolstering the company's business growth and keeping expenditure within optimal limits. Over the past three years, the total value of cash donations made through the foundation has more than quadrupled, while the value of merchandise passing through the Foundation has risen by nearly 5 times. In 2016-2018, the number of the fund's beneficiaries went up more than 40%, even though the company cut its own charity expenditure by half.

### DETSKY MIR CHARITABLE FOUNDATION DISTRIBUTED

# RUB630 m

### FOR CHARITY PROJECTS IN 2018, NEARLY 94% OF THE FUNDS COMING FROM THIRD PARTIES



### OPERATIONS TOYS



The foundation's signature project Operation Toys (first launched in 2013) is about organising play rooms in hospitals and care homes, aiming to make little patients feel better and get well sooner.

In 2018, Detsky Mir opened 110 play rooms in 38 locations in 34 Russian cities and villages, including Irkutsk, Ulan-Ude, Kaliningrad, Voronezh, Penza, Saransk, Nizhny Novgorod, Petrozavodsk, Yessentuki, Rostov-on-Don, Smolensk, Chermal, Choy, Gorno-Altaysk (Republic of Altay) and many other places. The project absorbed over RUB 15.1m in investment, 50% up from the year before. Detsky Mir not only provides toys and decorates rooms, but also buys the necessary furniture and technology as needed.

# RUB15.1+ m

### INVESTMENTS IN THE PROJECT OPERATION TOYS IN 2018

### PARTICIPATE!

The Participate! charity campaign aims to provide much-needed things (clothing, footwear, stationery, educational toys, sports gear, etc) for orphanage wards, children from low-income families and special-needs children.

The campaign is more than 14 years old and runs the whole year round since 2017. When shopping at Detsky Mir stores, customers are invited to help underprivileged children by buying a gift and leaving it in the special box installed in the checkout area. They can alternatively make a cash donation by sending a text message to the short number 7715.

The 2018 campaign involved 280 communities in Russia and Kazakhstan, collecting more than 9.6m gifts to a total value of RUB 553m.



### THE 2018 CAMPAIGN INVOLVED 280 COMMUNITIES IN RUSSIA AND KAZAKHSTAN, COLLECTING MORE THAN

# 9.6+ m

### GIFTS TO A TOTAL VALUE OF

# RUB553 m

# Agriculture



Although agriculture is commonly perceived as a highly conservative industry, Sistema's farming assets are active in implementing modern-day technology and digital solutions and demonstrate solid growth rates, strong competitive muscle and ever-growing export potential, while also supplying domestic consumers with fresh local vegetables, fruit and milk. Innovations, sustainable land use and informed care about plants and cattle translates into high yields and strong productivity of the Steppe AgroHolding farms spread across four regions of the Russian south, including

**410+** ha

**OF LAND, WHERE THE COMPANY GROWS WHEAT** (~60% OF GROSS GRAIN+OILSEED OUTPUT), **BARLEY, CORN, PEAS, CHICKPEAS, SUNFLOWERS, RAPES, FLAX, SAFFLOWERS, CILANTRO AND SUGAR BEETS**

**5**

**STATE-OF-THE-ART DAIRY FARMS, THE NATIONAL LEADERS IN EFFICIENCY WITH A PER-COW MILK YIELD THAT IS ALMOST THE DOUBLE OF THE RUSSIAN AVERAGE**

**EUROPE'S BIGGEST GREENHOUSE FARM YUZHNY, THE NATIONAL NO 1 IN GREENHOUSE FARMING PRODUCING**

**45,000+** tonnes **OF TOMATOES AND CUCUMBERS A YEAR**

**745** ha

**OF INTENSIVE ORCHARDS GROWING SOME 20,000 tonnes OF TABLE APPLES PER YEAR**

**TOP 10**  
BY LAND IN RUSSIA

**TOP 6**  
RUSSIAN GRAIN EXPORTERS

## FOOD SECURITY

While always meticulously controlling the quality of produce, Steppe AgroHolding also puts a high premium on building a transparent supply chain "from field to consumer" in both B2B and B2C segments by means of selling fruit and vegetables under the Steppe brand in over 25 nation-wide retail chains and through 50 independent wholesalers, as well as by making direct deliveries to Russia's largest food processors and supplying foreign customers (both through large partners and through Steppe's own logistical infrastructure). In February of 2019, Steppe signed an agreement with the Rostov region's administration to build a 2m tonnes grain terminal in the port of Azov, an investment estimated at RUB 1.1bn.

The company's produce is distributed all across Russia. In 2018 alone, Sistema's agricultural assets accounted for over 4% of all protected-ground vegetables, some 1% of all wheat and other grains/oilseeds and roughly 0.3% of all raw milk produced at Russia's commercial farms.

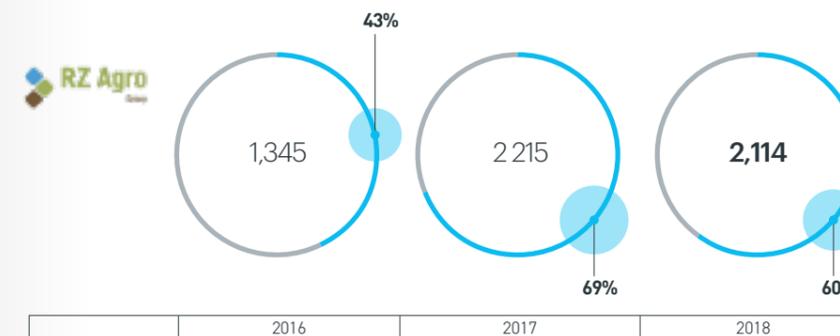
Further intensification of production will serve to address the segments of the national market that are still under-served. Steppe's investments in a new 1,800 cows dairy farm and 2 mega farms each 3,000 cows large envisage an output boost to 200,000 tonnes per year. The Corporation also makes a great contribution to meeting national demand for fresh vegetables.

More than 62% of the collective produce of Steppe and RZ Agro in 2018 were exported.

## Food security and technological advances in livestock production



### CONTRIBUTION OF SISTEMA'S AGRI ASSETS TO THE DEVELOPMENT OF THE NATIONAL EXPORTS POTENTIAL (VOLUME/SHARE OF EXPORTS IN TOTAL SALES OF PRODUCTS/SERVICES), RUB M



### AGRONOMY, TECHNOLOGY AND DIGITALISATION AS SUSTAINABILITY TOOLS



According to the Food and Agriculture Organisation of the United Nations<sup>1</sup>, climate change and its impact (rising temperature, changing rainfall, disturbed weather, and spread of pests and diseases) compromise agricultural productivity and so pose a threat to food security. To cope with the ever-growing demand, agriculture and food producers must learn to adjust to adverse effects of climate change and become more resilient, productive and sustainable.

Taking careful account of the climatic factors and geographic features of the territories where Sistema's farms operate, Steppe AgroHolding and RZ Agro are particularly committed to bringing innovations to various segments of agriculture to keep up with the evolving needs of Russians and foreign consumers while also further perfecting the quality of produce.

Steppe AgroHolding is now working to upgrade its technology towards greater moisture and resources conservation. In crop farming, Steppe uses no-till farming on some 30% of its land and minimum-till farming, on another 30%.

**1.1+** m tonnes **OF GRAIN EXPORTED BY STEPPE IN 2018, WHICH EXCEEDS THE COMPANY'S OWN GRAIN OUTPUT THE SAME YEAR BY HALF**

<sup>1</sup> fao.org

In developing their very own fields base, cooperating with Russia's leading agricultural R&D centres, using the latest methods of tillage, irrigation and enrichment of soil, and administering efficient management and control of production processes, Sistema's agricultural assets have for years been stepping up productivity and stabilising output. Innovative research solutions coupled with state-of-the-art IT systems for analysis and monitoring make the business ever greener and increasingly resistant to climate change.

## NEW TECHNOLOGY IN CROP FARMING AND VEGETABLE & FRUIT GROWING



In 2018, Steppe AgroHolding embarked on designing its very own monitoring & analysis system for crop farming applications, planning to fully switch to the digital platform by the end of 2019.

The system automates and integrates multiple processes (planning, keeping records, controlling and analysing) and makes them more transparent, enabling a better control of production performance against plans and a more accurate account of meteorological conditions and the consumption of fuel, crop protection agents, fertilisers and seeds. Soil fertility status and the condition of crops are likewise comprehensively evaluated, drawing on images obtained from satellites and drones, field inspections and agrochemical analysis charts. The system will also enable a close control of produce movements.

Once implemented, the new system is expected to cut the consumption of fuel by 20%-30%, and that of crop protection agents and fertilisers, by up to 10%, while also optimising the logistical aspects of production. A more efficient use of resources and swift responsiveness to any changes in plant health will translate into higher outputs of crop farms.

An important aspect of vegetable growing, along with obtaining new varieties of tomatoes and cucumbers, lies in the use and breeding of entomophages (beneficial insects that devour pests and so protect crops in a sustainable chemicals-free way) for the purposes of ecological purity of produce.

## HIGH TECHNOLOGIES IN DAIRY FARMING

Steppe AgroHolding's development strategy in dairy farming is aimed at creating one of Russia's biggest milk producers, able to guarantee a steady supply of quality milk, certified according to European standards. Steppe AgroHolding plans to increase the livestock and commission new high-tech dairy farms, where all operations are almost fully automated: all farms are connected to the internet and equipped with the AfFarm herd management system. Each cow has a special sensor attached to it that supplies farm workers with all the necessary information about the animal's activities, including milk yields and current conditions, in a real-time mode. Constant monitoring helps to reduce the disease rates and increase the milk output of all animals. Special attention is paid to production of quality fodder.

Latest technologies, which have been implemented at Steppe's farms, ensure efficient management of genetics and reproduction, help to create unique conditions for the livestock, including free-stall housing and regulated microclimate, which guarantees high quality of milk and help to reduce greenhouse gas emissions thanks to selection and control of the cows' diet.

High degree of automation has a positive impact on the economic performance of the new farms, too. In March 2018, Steppe AgroHolding commissioned a new high-tech dairy farm in Novoplastunovskaya, the Pavlovsky district of the Krasnodar region. The farm will be populated with own highly productive cattle, and genetics will be managed using the Selex software that is fully integrated with other systems, which allows creating a close-looped cycle of herd information processing. Investment in the construction of the region's biggest dairy farm will amount to almost RUB 2bn. It is scheduled to open in 2022.

### STEPPE AGROHOLDING IS GOING SCIENTIFIC



On 19 October 2018, Steppe AgroHolding entered into a Partnership Agreement with the Don State Agrarian University, giving the company access to prime agricultural talents and a research base that is among the country's best. It's in the best interests of both parties to propel the development of the Rostov region's agricultural sector and to foster skilled young talents. The agreement provides for joint research projects seeking to identify and put to use the latest efficient technologies and modern-day agricultural solutions. The university's under- and post-graduate students will be invited to do internships and carry out research at Steppe's farms. In turn, the holding company will work hard to both provide employment to the new specialists and upgrade the skills of existing staffers.

In December of 2018, the university held the first workshop where Steppe's management, specialists and chief agronomists received insights into the newest technologies in today's agriculture.

## DEVELOPMENT OF REGIONS OF OPERATIONS

The level of social and economic development of rural areas is to a large degree determined by the state of the agricultural industry. Efficient and responsible agricultural operations based on the principles of sustainable development do not just preserve natural resources for future generations, but also improve the quality of life of the local population.

State-of-the-art farms of Steppe AgroHolding provide qualified jobs for about 5,000 people in the Krasnodar, Stavropol and Rostov regions and Karachay-Cherkessia. Purchasing grain from smaller producers, the company supports small and medium-sized businesses in the regions of its operations, and, therefore, employment of the local population. Opening of new facilities also promotes regional development. The new high-tech dairy farm commissioned in the Krasnodar region created about 100 new jobs. AgroHolding has begun construction of another mega farm in the Kanevsky district. Investment in the project will amount to RUB 2.1bn, and it will create over 150 new jobs in the region.

In 2018, Steppe AgroHolding signed three new long-term agreements for the purpose of efficiently regulating social and economic relations with the Stavropol region's municipalities: with the administrations of the Georgiyevsky municipal district, the Blagodarny municipality and the Kirovsky municipality.

Yuzhny Agricultural Complex carries out an important social function, being the town-forming enterprise in Ust-Dzheguta (over 6.5% of the town's population works for YAC). Since its establishment, YAC has been the only supplier of thermal power for heating and hot water supply in the Moskovsky district with a population of more than 10,000 people. It also finances a cultural and rehabilitation centre with hobby groups and clubs for more than 600 children.

Employees of Yuzhny enjoy free corporate transportation to work, free healthcare, subsidised food service, free vacation packages for resort homes and children's summer camps, sports for employees and their children at a cultural and recreation centre, and further training at universities in Karachay-Cherkessia and other Russian regions.



“*By constructing the dairy farm, Steppe AgroHolding enters a new segment in the Rostov region. We are facing ambitious tasks of increasing production efficiency. The next stage for us will be milk processing and launch of products under the Made on Don brand.*”

**ALI UZDENOV**  
Managing Partner of Sistema PJSFC

## SOCIAL PROJECTS AND INITIATIVES

Steppe AgroHolding's strategy of corporate social responsibility that was adopted in 2016 envisages social investments in the interests of local communities. The company's regular charitable activities provide it with a tool for achieving a number of strategic, socially important objectives and create a favourable environment for doing business in regions where it operates. Sistema's agricultural assets are in regular contact with executive authorities with regard to social issues; they buy medical equipment for municipal clinics, organize children's holidays and help to develop rural areas in regions of their operations.

In 2018, the subsidiaries of Steppe AgroHolding received and considered over 200 applications for various kinds of support, and their subsequent charitable contributions amounted to RUB 10.7m. In turn, RZ Agro Group allocated over RUB 13.6m for charitable events, social projects and sponsorship.

### KEY EVENTS OF 2018

#### CULTURE AND ART



Steppe AgroHolding and Sistema Charitable Foundation, together with the Rostov region's culture ministry, organised a Cultural Weekend, during which 4,000 people visited the local history museum free of charge.

#### SPORTS

Steppe AgroHolding was a partner of the open championship in weight-lifting among young people that was held in Salsk. About 200 athletes under 20 from the Rostov region participated in the event.

#### SUPPORT TO CHILDREN



Ahead of the New Year, Steppe AgroHolding and Sistema Charitable Foundation organised charitable New Year performances for 1,000 underprivileged children: orphans, disabled children and children from large and low-income families.

# Real estate



+100,000 sqm

**OF RESIDENTIAL AND COMMERCIAL REAL ESTATE SOLD IN 2018**

1.8+ m sqm

**NET SELLABLE AREA OF PROJECTS AT ALL DEVELOPMENT STAGES**

>50%

**OF LEADER INVEST'S PROJECT PORTFOLIO IS ENERGY EFFICIENCY CLASS A OR HIGHER**



Operations of Sistema's real estate development assets seek to create a comfortable and sustainable urban environment, build contemporary housing and ensure comprehensive development of territories, improve the quality and speed of housing construction by digitalising key business processes in real estate development. These objectives are in line with the tasks of the national Housing and Urban Environment project, which envisages modernisation of the sector, including through implementation of state-of-the-art design and construction technologies, and also with the trend towards smarter and more pragmatic consumption – the Green&Smart concept.

Leader Invest, which carries out residential and commercial real estate development projects in Moscow, has always paid special attention to enhancing the efficiency of its projects and implementing innovations at all stages of designing, constructing and operating a building. The company relies on green construction principles using energy-saving technologies, and complies with other important environmental requirements when constructing buildings. Today's residential buildings should meet not only high construction standards, but also the latest trends towards environmentally balanced development. Therefore, when designing and building houses, in addition to such mandatory considerations as safe construction materials, functional layouts and user-friendly design, the company pays significant attention to technologies of the future that offer urban dwellers a new quality of life.

A major task that was successfully achieved in 2018 was transition to multi-project management, which allows efficiently managing construction and inauguration of a big number of properties without an increase in the price of a square metre. Implementation of the new management model with a high degree of automation and low costs envisages creation of a digital environment that makes it possible to manage tens of projects online.

This required complete overhaul of business processes that were divided into end-to-end process chains with clear distribution of responsibility between employees, setting of standard timelines, elimination of losses and ongoing improvement. By the start of 2019, it included about 30 projects, or about 75% of Leader Invest's portfolio. This created a foundation that will make it possible to efficiently carry out any project regardless of its specifics, scale, changes in legislation, competitive environment, macroeconomic situation and other factors.



## GREEN TECHNOLOGIES WITH PANASONIC

At the end of 2018, Leader Invest signed an agreement on technological cooperation with Panasonic. Strategic areas of the partnership will include sustainable city development, energy-saving technologies, security, video surveillance and analytical systems, latest approaches to education. An important segment of cooperation will be green technologies, notably, building of high-tech urban vertical greenhouses for growing vegetables in residential complexes. Leader Invest's Krylya project that is being built in Ramenki in the southwestern part of Moscow will become a pilot site for this unique initiative.

## Innovations in housing design and construction, digitalisation and new technologies in real estate development, efficient management of commercial real estate



In addition to renting out and selling commercial properties, cottages and land plots, Business Nedvizhimost, one of the oldest real estate owners in Moscow, renovates and converts decommissioned infrastructure facilities – buildings of former automatic telephone stations (ATS) that were built in the 1960s – 1970s and are no longer in use. Depending on the buildings' location and state, they will be converted into offices, apartment hotels, hotels, multi-purpose centres, creative spaces, self-storage facilities, etc. Such projects make up for the deficit of usable space for city residents and visitors and for organisations, including small and medium-sized businesses.

In 2018, the company began the construction of its first 3\* apartment hotels for 157 rooms under the Cosmos Stay brand on the site of a former ATS. Investment in the project is estimated at around RUB 0.5bn. Business Nedvizhimost plans to build several city apartment hotels before 2020. Their exact number will depend on the results of pilot projects.

## DIGITALISATION OF THE CONSTRUCTION INDUSTRY

One of the important tasks for Leader Invest, which does not have in-house construction capacity, was to increase the quality of cooperation with general contractors. In 2018, the company overhauled its construction control system, introducing the latest digital technologies to replace the slow, ineffective and non-transparent document flow that was customary for the sector.

Now, the Stroycontrol mobile application has replaced photo-taking, filling in of paper forms and issue of recommendations at a construction site and in office.

An engineer checking completed work is now able to make corrections directly in digital blueprints and standard electronic forms. The system records all instructions, acts, history of interaction and automatically creates a single database of corrections and instructions for all properties. Since the app is integrated with a cloud service, all changes can be tracked in a real-time mode.

Representatives of 15 general contractors were connected to Stroycontrol, and digital control was introduced at 19 construction sites. As a result, the time needed for making a complaint was reduced from 1-2 days to 15-20 minutes, and the company received up-to-date statistics and analytics on complaints and instructions, which helped to improve the quality of construction works.

## INTRODUCTION OF BIM TECHNOLOGY IN THE RUSSIAN CONSTRUCTION INDUSTRY

In accordance with the Russian President's order<sup>1</sup>, it is necessary to transition to the system of life cycle management of construction projects by introducing BIM technology before 1 July 2019. Given the statutory requirements with regard to implementation of new technologies in the construction industry, Sistema's portfolio companies are actively working to improve their internal processes.

In 2018, Leader Invest completed introduction of BIM at the design stage, finished adapting the technology for the construction and assembly stage and began preparing a BIM model to be used by the management company for maintaining buildings. In addition, it used the Autodesk Vault solution to develop a shared data environment for work with up-to-date project documents for designers, the expertise department, employees of the technical contractors and other parties.

The key advantages of BIM, which makes project management more efficient, are reduction in the number of project errors, reduction of project timelines, ability to control the construction timeline, project budgets and scope of completed work, and also to achieve the highest safety level at construction sites. All these indicators have a direct impact on the construction costs and, therefore, affordability of housing.

BIM helps to reduce<sup>2</sup>: construction and maintenance costs by 30%, number of errors in design documentation by 40%, time of implementation of construction projects by 50%, construction time by 10%, budgeting errors 4-fold.



<sup>1</sup> "On modernisation of the construction industry and improvement of quality of construction" dated 19 July 2018

<sup>2</sup> According to the Construction Ministry

## DIGITAL QUARTER

One of the possibilities offered by digital transformation in real estate development is improving the quality of the living environment with the help of software that enables communication between residents and the local community, developer, management company and city utilities, monitoring and maintenance of equipment and utilities within an apartment, building, and quarter. In 2018, Leader Invest initiated development of an integrated and scalable software and hardware solution, Digital Quarter.

The idea is to combine latest solutions for managing apartments, homes and services on a single digital platform. This will include creating a single dispatcher's office for managing the Smart Home utilities systems at all of the company's properties, and a mobile application for apartment owners to ensure security, control over and payment of utility bills, communications with the management company, ordering services from the MC and local businesses (a marketplace), management of Smart Home devices; organisation of access to an apartment block's territory using contactless technology (RFID/BLE tags, licence plate recognition).

Development of this segment will enable the company to unlock synergies with other companies of Sistema Group that develop solutions for smart homes and cities, first of all MTS Group and its subsidiaries MGTS and NVision Group.

In the reporting period, the company completed integration with Moscow's digital services (the Single Information and Payment Centre, the Utilities geographic information system). Leader Invest, whose representatives are actively involved in the development of innovations and specific initiatives for the purpose of the segment's digitalisation, was included in the Smart City working group of the Russian Construction Ministry.<sup>1</sup>



<sup>1</sup> In March 2019.

## ENERGY-EFFICIENT CONSTRUCTION



Use of energy-saving technologies in construction that reduce impact on the environment and housing maintenance costs is becoming an important condition for sustainable development of cities and a new factor in consumer demand.

Recognising the importance of the principles of environment-friendly construction in order to encourage consumers' interest in "green" buildings, Leader Invest proposed a legislation that would link the real estate tax rate to the class of energy efficiency of residential buildings, so that the discount could reach end buyers of housing and energy-saving technologies would acquire real value for customers and provide an additional incentive for reasonable consumption. In 2018, this initiative was discussed at a roundtable organised by the State Duma's committee for housing policy and utilities.



Leader Invest's portfolio includes over 40 residential projects in the premium, business and comfort segments with improved characteristics. More than half of them correspond to energy efficiency class A and up, consuming about half as much energy as their traditional counterparts. Under the current Russian laws, the real estate market is expected to arrive at such figures only in 10 years.

## CHARITABLE AND SOCIAL PROJECTS

As a responsible corporation, Leader Invest is actively involved in various volunteering and charitable projects, and carries out social initiatives for its customers and employees seeking to develop relations with local communities, including events for new tenants.



A vivid example of synergy between the Corporation's assets and of a social partnership between a business and a non-profit was the first charitable performance for children, Sleeping Beauty, organised together with Medsi. The charitable initiative was also supported by MTS, charitable foundations of Sistema and Detsky Mir, Podari Zhizn, Arifmetika Dobra, Konstantin Khabensky's Foundation, the Centre for Social Projects Development and other non-profits. More than 750 children, including orphans, disabled children, children from foster homes and large families, attended the event.



At the beginning of 2018, the company organised its first corporate blood donor's day at the office, with support from the Blood Service state programme for the development of volunteer blood donations. A total of 30 people took part in the event, donating blood for little patients of the children's department of the Burdenko Neurosurgery Centre.

# Electric power



## RUB4.6+ bn

**INVESTMENT IN POWER GRID INFRASTRUCTURE**

## 19,300

**NEW USERS CONNECTED TO POWER GRIDS**

## ~900

**ON PREVENTION OF CHILDREN'S ELECTRICAL INJURIES ORGANISED**

## RUB14 mn

**ALLOCATED FOR CHARITABLE AND SOCIAL PROJECTS IN 2018**

## >60%

**OF BPGC'S PROCUREMENT IS MADE FROM LOCAL PROVIDERS**

For details about BPGC's activities and contribution to sustainable development, see the company's [Annual report](#).

JSC Bashkir Power Grid Company (BPGC) is a big private regional power grid company that ensures inter-regional electricity transit, electricity transmission and distribution in Bashkortostan and design and construction of power facilities. Reliability of infrastructure and uninterrupted power supply are crucial for the population's well-being, and functioning of social facilities and industrial enterprises of the region. To meet the growing power demand of households and companies and provide quality and affordable services, BPGC actively invests in upgrade of existing and construction of new substations, utility connection of customers and enhancement of customer service, digitalisation and introduction of innovative technologies. Being an integral part of the country's power grid system, the company ensures coordinated development of power grids, carrying out a uniform technological policy and rolling out its state-of-the-art experience to the entire segment.

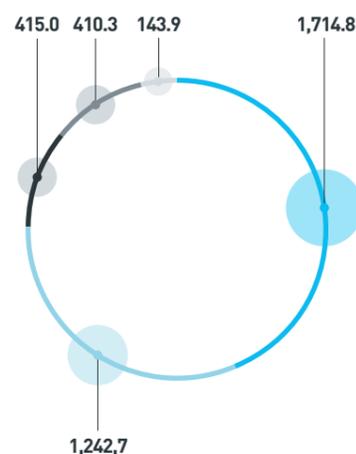
### CONTRIBUTION TO THE REGION'S SOCIAL AND ECONOMIC DEVELOPMENT

As the biggest power grid company in the Republic of Bashkortostan, BPGC ensures reliable power supply and timely connection of customers to power grids, creating conditions for social and economic development, improvement of energy efficiency and competitiveness of the region's industrial enterprises.

BPGC invests significant sums in new construction and comprehensive upgrade of power facilities with innovations. Out of BPGC's investment in the development of the power industry in 2018, the bulk went to technical overhaul and reconstruction of grid facilities. A total of 19,300 users were connected to grids last year, including 16,800 customers entitled to discounts.

BPGC is one of the region's major employers, employing about 8,000 people. It also makes a substantial contribution to the development of local businesses by actively cooperating with them. In 2018, 64% of goods and services procured by BPGC were bought from local suppliers and providers.

### BPGC'S INVESTMENT PROJECTS IN 2018 RUB M



Electrification and development of electricity infrastructure
Reconstruction and construction of grids
Reconstruction, upgrade and technical overhaul of power grid equipment and transmission lines
Automation of network management and electricity metering systems
Ensuring industrial, environmental and occupational safety

Efficient and steady work of the energy sector in the interests of Bashkortostan's successful social and economic development

### CREATING THE ENERGY SECTOR OF THE FUTURE

The energy industry of the future is a digital sector based on smart technologies. BPGC is rightfully considered one of the innovative leaders of the country's power sector, having made a lot to adapt best international practices to the Russian circumstances in recent years.

The company actively introduces new technologies, continuing its project of comprehensive upgrade of the power grid sector in Ufa, automates production and business processes on the basis of the Russian 1C platform, and creates own IT products for the power sector.

### RELIABILITY AND QUALITY OF POWER SUPPLY

In 2018, under an agreement with Kronstadt Group, the company began development of a new complex monitoring system using air drones. Its introduction will reduce the labour intensity of BPGC's processes related to diagnostics of the technical state of overhead power transmission lines. The system, which will consolidate data from various sources into one landscape with geospatial references, is designed to create a digital map of power facilities and enhance the reliability of power supply to consumers by timely warning about potential risks.

## 250,000+

**SMART ELECTRICITY METERS INSTALLED SINCE 2011**

### SECTOR DIGITALISATION: EXCHANGING EXPERIENCE

BPGC is successfully implementing one of the most important innovative projects in Russia's power generation using elements of Smart Grids in Ufa. In 2018, BPGC's facilities were visited by delegations from Omskenergo and Belarussian energy companies who came to study the company's experience, see the work of the Grid Management Centre in Ufa, and visit the switchboard cell assembly site of BPGC Engineering and districts of Ufa to see how the assembled equipment functioned.

On 17 April, Bashkirenergo received a delegation of power grid workers from the Republic of Tatarstan that came to learn about BPGC's successful use of an ERP system to automate the processes of technical maintenance and repairs of the company's facilities.

One of the main indicators of BPGC's strong performance in 2018 in power transmission was a reduction of losses in trunk and distribution grids. It was achieved, on the one hand, by a number of technological measures aimed at upgrade and modernisation of grid equipment, and on the other, by active work to prevent non-contractual and off-the-meter consumption, first of all, by implementing a programme for introduction of an automated power control and metering system, under which a total of 56,500 smart meters were installed in 2018, which is an all-time high for the company.



On 13 March, BPGC received a delegation of Moscow Cable Networks that came to learn about implementation of PSIControl software and hardware in the Ufa city power grids. PSIControl is a controller with deeply integrated calculation functions, which ensures the fulfilment of a variety of tasks, including improvement of the quality of operational management of power systems and prevention of emergencies.

### QUICK RESPONSE TO EMERGENCIES

On 6 August 2018, a hurricane passed across the central part of Bashkortostan, which rampaged till the morning of 7 August. The biggest damage was made to the villages of Iglino and Osipovka in the Blagoveshchensky district, where the wind broke down power transmission lines. Tens of apartment blocks and hundreds of houses with thousands of residents were left without electricity. Without waiting for the hurricane to subside, BPGC's workers were the first among communal and utility services to start dealing with the consequences of the natural calamity. Thanks to their coordinated and selfless actions, power supply was restored already in the morning of 7 August. Administrations of the districts hit by the hurricane expressed gratitude to the company for its quick response.

## SOCIAL PROJECTS

In 2018, BPGC was declared the most socially responsible and open among Russian power grid companies in the national contest Russia's Best Power Grids. In June, the company adopted a CSR policy till 2020, which covers all of its subsidiaries, and conducted extensive work to develop its HR potential and a mentorship system, to promote a healthy lifestyle among its employees, and to prevent children's electrical injuries.

In 2018, BPGC's spending on charity and social projects increased almost 3x, while the number of people involved in corporate volunteering grew by more than 10% in the last three years. Notably, the company provided aid to its former employees who faced difficult circumstances, secondary education school No 70 in Sibay, the Inter-Regional Fund for Sports Promotion, the regional office of the Russian Geographic Society, and the Gorodskaya Sreda non-profit for organising PROFEST, a career guidance festival.

In the last several years, BPGC's volunteers took part in events included in the company's flagship outreach programme, Safe Childhood. It has been in place for 5 years, in accordance with the agreement on prevention of children's electrical injuries signed with the Bashkir Education Ministry, which was once again extended for another school year. In 2018-2019, extra-curriculum lessons on prevention of electrical injuries will be organised at all territorial divisions of BPGC.

In 2018, the company's representatives held 900 lessons for schoolchildren on the subject and launched a video blog on electricity safety rules targeting the teenage audience.



### THE ADVENTURES OF BPGCMAN

#### On TV screens

Ahead of the summer vacation, when children are often left unattended, BPGC organised broadcast of an 8-episode cartoon series, The Adventures of BPGCman, on the republican TV channel BST.



#### On stage

Theatre performances on power safety for kindergarten and elementary school students were given in Ufa, Meleuz, Yermekyev (the Yermekyev district) and Ulu-Telyak (the Iglinsky district).



#### On children's smartphones

BPGC produced the mobile version of a computer game on power safety for children in Russian and Bashkir languages. The game teaches safe behaviour around power facilities. The bilingual interface makes it accessible for every schoolchild, even in the most remote areas of Bashkortostan. It is available for free download on Android and iOS.

30+%

**OF BPGC EMPLOYEES REGULARLY EXERCISE AND PRACTICE SPORTS**

x3

**GROWTH OF SPENDING ON CHARITY IN 2018**

~4,000

**LESSONS ON PREVENTION OF CHILDREN'S ELECTRICAL INJURIES GIVEN SINCE 2014**

## ENVIRONMENTAL SAFETY

The key elements of BPGC's environmental management are constant internal production control and monitoring of environment pollution. In 2018, the company increased the number of internal environmental safety inspections by 130%, to 395.

In 2018, Bashkirenergo passed an audit of its integrated management system, which once again confirmed its compliance with international quality and environmental management standards. The Russian Register certification association prolonged its certificates of compliance with ISO 9001:2015 and ISO 14001:2015.

x9

**GROWTH OF SPENDING ON ENVIRONMENT PROTECTION IN 2018**

386

**EMPLOYEES TOOK PART IN THE NATIONAL ECO RECYCLING MARATHON**

100%

**OF PAPER FROM FSC CERTIFIED SOURCES**



### PROTECTING BIRDS AGAINST ELECTRIC SHOCK

Every year, BPGC takes measures to prevent birds from being killed by electric shocks at power facilities. For this purpose, it uses self-supporting insulated wire in design, construction and upgrade of 0.4 and 6-10 kV overhead transmission lines. This wire has insulation that provides reliable protection for birds. In 2018, the company used 238 km of such wire on 6-10 kV lines and 648 km on 0.4 kV lines, making it a total of 886 km.

Yet another way to minimise the risk of birds being killed and increase reliability of power grids is to install bird protective devices on power lines in areas of birds' gathering, nesting and mass migration. Use of such devices protects birds against electric shocks and electricity consumers against power outages caused by birds.

BPGC's allocations for bird protection in 2018 amounted to almost RUB 70m. In 2019, the company plans to install another 5,300+ bird protective devices on transmission lines and poles.

4,800+

**BIRD PROTECTIVE DEVICES WERE INSTALLED BY BPGC ON POWER TRANSMISSION LINES IN 2018**



# Hospitality business



## 4,000

ROOMS UNDER MANAGEMENT

## 17

 hotels

## 14

 cities

## 4

 countries

Sistema's hotel assets comprise almost twenty hotels in more than 10 cities of Russia, in Italy, Namibia and the Czech Republic, including hotels under famous international brands – Park Inn by Radisson and Holiday Inn Express. Sistema's hotels are managed by Cosmos Hotel Group, one of Russia's leading hotel management companies that provides a full range of hotel development services: from project consulting and preparing a hotel for opening to cost optimisation and increasing asset capitalisation. Cosmos Hotel Group is an accredited management company for such international hotel operators as Radisson Hotel Group, Wyndham Hotel Group, and Intercontinental Hotels Group.

### HIGH STANDARDS OF RESPONSIBLE HOSPITALITY

Cosmos Hotel Group takes into account the unique location, history and reputation of each hotel under management and develops properties relying on international standards of quality and responsible hospitality business.

A milestone in the process of implementing a single approach to managing different categories of hotels was the launch of the company's own brand, Cosmos Hotels & More, in 2018. It became the first Russian hotel chain of a new type, which meets international standards and includes hotels in 4 different price segments: budget city hotels My Cosmos, business hotels Cosmos, premium hotels Cosmos Collection, and apartment hotels and serviced apartments Cosmos Stay. Before doing this, Cosmos Hotel Group had carefully researched global trends in the industry and consumer experience of hotel visitors. The concept of the Cosmos Hotels & More chain combines specifics of a hotel's location and global opportunities for guests.

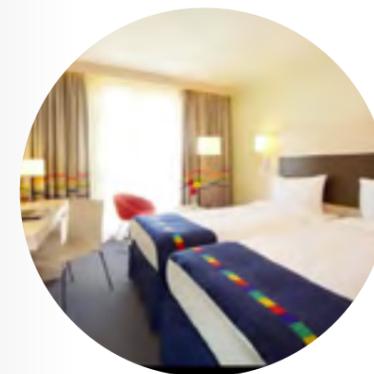
In November 2018, the company opened the re-branded business hotel Cosmos Petrozavodsk (previously, the Onego Palace) in Petrozavodsk, which was a remarkable event for the city. The change of the hotel's brand symbolised a change in philosophy and service quality standards. The launch of the new chain will make it possible to expand the Corporation's portfolio of hotels under management and geography of operations, as well as enhance business efficiency by introducing single operational and technical standards, latest equipment and high level of service. The plans are to increase the number of Cosmos Hotels & More rooms to 4,700 in the next five years.

Responsible attitude towards environment and society is among top priorities for the Corporation's hotel assets. The Group's hotels operate in accordance with regulations approved at the level of Cosmos Hotel Group (including the Code of Ethics, the Anti-Corruption Policy, the Hotline Policy, the Tender and Procurement Code, etc.), applicable laws and requirements in the social and environmental spheres, including HACCP requirements and sanitary and epidemiological norms.

The Group's hotels that work under international brands apply internal corporate standards and practices that ensure that their operations are in line with the principles and aspects of sustainable development. Notably, all Holiday Inn Express hotels make use of the online IHG Green Engage System, which helps them to implement over 200 environment-friendly solutions aimed at saving water and electricity and reducing waste and CO2 emissions. Participation in the Green Engage system helps to not just reduce impact on the environment, but also lower operating expenses. Park Inn hotels have for many years operated in accordance with the Responsible Business programme and its three main focus areas: people, community and the planet. Under the programme, each hotel prepares and implements its individual action plan of sustainable development.

Voluntary certification of Cosmos Hotel Group's hotels under the international Green Key programme is yet another tool for implementing responsible business practices. Out of 31 Russian hotels certified according to the programme, four belong to Cosmos Hotel Group: the Park Inn by Radisson Astrakhan, Park Inn by Radisson Novosibirsk, Park Inn by Radisson Sochi and Park Inn by Radisson Volgograd, which in 2018 became the first hotel in its city to receive this prestigious international certificate.

Development of hotel infrastructure in Russia and responsible hotel management in accordance with international hospitality standards



Environmental responsibility of hotels that joined the Green Key programme covers such aspects as:

- ▷ resource-saving water and power consumption,
- ▷ waste reduction and recycling,
- ▷ promotion of local products, including vegetarian products,
- ▷ creating conditions for eco-friendly transfer of hotel visitors.

Cosmos Hotel Group's hotels responsibly approach creation of a barrier-free environment for the mobility impaired. Solutions that provide easy access to hotel infrastructure are implemented for the convenience of guests. Accessible rooms are organised at hotels in accordance with Russian and international standards. The Group's hotels allocate job quotas for the disabled.

### INVOLVEMENT IN THE LOCAL COMMUNITY DEVELOPMENT

Cosmos Hotel Group actively supports small and medium-sized businesses in regions where its hotels operate, procuring over 50% of goods and services from local vendors and helping to create new jobs and develop local businesses. For example, acquisitions from local vendors in 2018 accounted for 81% of all procurement at the Intourist Kolomenskoye, 88% at the Park Inn by Radisson in Novosibirsk, while the Holiday Inn Express Paveletskaya bought 100% of goods and services from local enterprises. The Park Inn by Radisson Sochi and the Altay Resort also actively cooperate with small and medium-sized businesses, who accounted for 80% and 100% of their procurement in 2018, respectively.

The company pays significant attention to the development of its HR potential. In order to train qualified personnel for the hospitality industry, Cosmos Hotel Group signed cooperation agreements with relevant regional universities and colleges. Hotels use various formats of career guidance: conferences for students from relevant universities, their meetings with heads of departments, introductory internships for students, excursions, etc. For example, the Park Inn Novosibirsk organised workshops and quizzes for children in foster care. With the help of hotel employees, children learned about the workings of the check-in and accommodation services, the housekeeping service, utilities and security service.

### INTERACTION WITH THE PROFESSIONAL COMMUNITY

Development and implementation of high hospitality standards are supported by Cosmos Hotel Group's interaction with the professional community. In 2018, Cosmos Hotel Group became a strategic partner of the Russian Association of Business Travel, the biggest international business travel organisation in Russia and the CIS, which encourages professional development of business travel professionals and serves as a platform for communication between consumers and providers of services, and organises industry conferences and forums. In 2018, Cosmos Hotel Group supported and participated in such momentous industry events as the 10th annual forum for corporate business travel managers – ACTE Moscow Executive Forum 2018, the St Petersburg Business Travel Forum, and the First Russian MICE Day for promotion and development of business travel and congress services in Russia.



### TRAINING STRONG PROFESSIONALS

The Park Inn by Radisson Sochi City Centre works actively to transfer its knowledge and experience to students, and supports young professionals in cooperation with the region's schools: the Sochi State Tourism University and the Sochi College of Polycultural Education. Students undergo practical training and pre-degree internships at the check-in and accommodation service, room service division, financial department, booking department, etc. The Park Inn by Radisson Sochi City Centre has mentorship programmes under which heads of structural divisions support and assist interns.

The Park Inn by Radisson Volgograd cooperates with the Volgograd State Agricultural University and other regional universities that train professionals for the hospitality segment (chefs, waiters, maids, hotel managers, etc.), helping students and young professionals with career guidance and employment.

In 2018, the hotel organised a conference for students of the Volgograd State Agricultural University, in the course of which students could interact with heads of the hotel's divisions and learn about the specifics of each and about job vacancies. After the forum, both parties said they would like such events to be held regularly.



Cosmos Hotel Group sets itself the goal of improving standards of living in the communities where it operates. Independently and together with charitable and public organisations, the hotels' employees participate in many socially important events, including help to the elderly and war veterans. Notably, ahead of the New Year, Cosmos Hotel Group's hotels together with the Ageing Gracefully Foundation organised a campaign to collect presents for the elderly and for nursing homes for the elderly and disabled. Cosmos Hotel Group also regularly provides aid to orphans, disabled children and children from large families. The hotels help to make orphanages and children's rehabilitation and diagnostic centres under their patronage more comfortable. For example, the Park Inn by Radisson helped to repair the assembly hall of the Republican Diagnostic and Consulting Centre in Izhevsk, while employees of the Park Inn by Radisson Volgograd landscaped the territory of the regional hospice.



# Finance



Digitalisation of financial services, development of accessible and convenient services for businesses and population

Sistema's portfolio includes two banks operating in Russia and Europe and a management company that conducts investment activities and provides asset management services to individual and corporate customers on global markets. The Group's companies make a significant contribution to improving the living conditions of the population and economic activity by development lending mechanisms for businesses and the population, ways for saving and increasing personal funds, developing a mass investing culture in Russia based on clear, transparent and affordable products. The Corporation also helps to strengthen international cooperation in the financial and economic sphere.

## MTS BANK

3<sup>m</sup>

**CUSTOMERS OF FINANCIAL SERVICES**

TOP 5

**BY GROWTH RATE IN THE RETAIL BUSINESS**

For MTS Bank, which has earned the reputation of a reliable, universal financial institution during its 25-year history, year 2018 meant an important milestone of digital transformation of the business through deep integration with MTS's ecosystem in order to provide latest fintech services to customers. At the new stage of development, MTS Bank has a strategic goal of becoming Russia's best digital bank for everyday life and for doing business, offering mobility and freedom of choice to every customer.

TOP 50

**RUSSIAN BANKS BY ASSETS**

TOP 3

**BY GROWTH RATE IN ISSUANCE OF LOAN PRODUCTS**

The bank has offices in 40 regions and 73 cities and towns of Russia, where about 70% of the country's population lives. In 2018, MTS Bank increased its retail loan portfolio by 75%, cash loans surged more than 5-fold, issue of credit cards more than 3-fold and of POS loans by 40%.

MTS Bank's annual reports are available at [mtsbank.ru](https://www.mtsbank.ru)

## SISTEMA CAPITAL

TOP 10

**ASSET MANAGEMENT COMPANIES IN RUSSIA**

+30%

**AUM GROWTH IN 2018**

Sistema Capital promotes development of the investing culture in Russia, offering clear and easy-to-understand ways for investing in securities and derivatives of Russian and foreign issuers representing various sectors. As of the end of 2018, Sistema Capital had about RUB 68.3bn in assets under management, a 6.4x growth vs 2014.

## EAST-WEST UNITED BANK

3,000+

**CUSTOMERS FROM LUXEMBOURG AND GERMANY REGISTERED ON THE EAST WEST DIREKT ONLINE PLATFORM**

33%

**1ST TIER CAPITAL ADEQUACY RATIO**

East-West United Bank (EWUB), which was founded in 1974, today offers private and corporate customers a broad range of standardised financial solutions and has for many years served as a bridge connecting the East and the West, Russian and CIS businesses with European partners. EWUB is one of the few banks with Russian capital that has access to Europe's mass banking market.

## DIGITAL SERVICES AND SERVICE AVAILABILITY

Digitalisation, introduction of artificial intelligence and other innovative technologies enable the Corporation's financial assets to offer optimal solutions and a brand new level of service in the financial sector to its customers and partners. Sistema Group companies are bringing finance and technology together in order to offer users unique services that were made possible thanks to combining the competences of a telecom operator and financial and investment companies.

At the majority of MTS retail outlets in all regions of operations, the bank and the telecom operator offer joint financial products – bank cards and POS loans – in addition to telecom and standard financial services (payments and money transfers). They have joint offices across Russia offering a broad range of bank products and services: consumer loans, transactions with deposits, enhanced card services, currency exchange, and also payroll programmes and cash management services for small and medium-sized businesses.

In addition to creating unique convergent fintech products in partnership with MTS, MTS Bank invested in some other strategic projects in 2018 as part of its programme of digital transformation. These included overhaul of its IT infrastructure, development of "paperless" lending procedures, implementation of biometric client identification, and launch of digital offers for small businesses.

MTS Bank was one of the first banks in the Russian market to introduce an online service for issuing electronic statements from the Pension Fund of Russia enabling individuals to quickly have their income confirmed on a website or via a mobile app in order to get a consumer loan.

Integration with the gosuslugi.ru website has given the bank's customers an option to open debit and credit cards online instantly. Use of the national Single Identification & Authentication System lets people save time on filling in personal information, and lowers fraud risks for MTS Bank.



“*MTS Bank today means almost three million users of financial services, and 6,000 loans daily. We make four lending decisions every minute. This implies fairly deep integration with a mobile operator both in processes and customer data. It used to be a brick-and-mortar business, but now it is digital, plus small and medium-sized businesses in which we invested heavily last year and continue investing. The number of customers we potentially consider is tens of millions. Every month, 4,000 MTS outlets alone receive 16m visitors. The number of active users of the My MTS app exceeds 40m people. This means a huge amount of data with a great development potential, but it also implies serious responsibility for a mistake. And, of course, this brings new challenges related to the development and modernisation of the market as a whole. Therefore, we try to find the right balance between growth rates, changes of the product mix, diversification of sales channels and potential scale-related risks.*

### ILYA FILATOV

Chairman of the management board at MTS Bank / Vice President for Financial Services at MTS

In 2018, MTS Bank launched the service of registering retail customers in the Single Biometric System at its offices. Registration is free and is similar to getting an e-passport that makes it possible to get bank product and services 24/7 on the website of any bank connected to the system, without a visit to the office.

## DIGITAL GENERATION

In June 2018, MTS Bank participated in the GeekUniversity Career Day at Mail.ru Group, where it presented its pilot programme Digital Generation for hiring young IT professionals. After the event, about 100 potential candidates handed in the questionnaires that they filled out so the company could contact them.

Digital Generation can become a great start for programmers, developers, testers and IT analysts. Thanks to it, MTS Bank will become an even more flexible company, fully integrated in the world of digital technology.

## DIGITAL SERVICES FOR MOSCOW RESIDENTS



MTS Bank actively promotes implementation of digital services for creating comfortable living conditions for Moscow residents. Under an agreement with the Moscow IT Department, the bank has been maintaining, developing and modernising the mos.ru portal and the Moscow Public Services mobile app since 2018. The main goal of the project is to offer an extensive selection of one-click payment tools in Moscow residents' personal accounts, creating a single user space, centralising payment for services and making the service convenient, reliable and up-to-date. The bank has already included options of paying for kindergartens, children's hobby clubs and classes, school catering, utility bills and fines for traffic violations, and intends to add new payment tools and technological solutions for citizens' convenience.

An outstanding example of successful synergy between Sistema's assets in the financial sector is cooperation between Sistema Capital and MTS for development of investment products for a broad range of retail investors. The new joint service, MTS Investment, gives the broad public an opportunity to use remote online services to invest in rouble and foreign-currency mutual investment funds with high returns. In 2018, retail investors were offered four well diversified investment funds. Now it has become easier to invest in shares and bonds of Russian and foreign companies. Buying units in a fund is similar to a purchase at an online store: transactions are concluded on the website or using the mobile app that offers options of buying, exchanging and redeeming units. Partnership with Sistema Capital has made MTS the first Russian telecom operator offering mutual investment funds with a minimum investment threshold and a possibility of remote purchase.

## QUALITY AND RELIABILITY OF SERVICE

In 2018, MTS Bank began conducting regular assessment of customer experience in all service channels for the key banking products. It collected over 45,000 assessments from customers on 11 parameters. Based on this data, the Customer Experience Centre developed and implemented quality reports, which include the main parameters of customer satisfaction. MTS Bank also participated in a syndicated loyalty survey (NPS) for a group of Russia's major banks, getting an opportunity to compare its results against other market players and determine the key focus areas for improving customer experience.

In February 2018, MTS Bank launched a programme for quality standard assessment using the mystery shopper methodology. Quality parameters are included in the incentive schemes of employees of the chain's offices. Thanks to updating service standards and introducing new ones, the mystery shopper index rose from 83% to 89%, while time required for making decisions on customers' requests was reduced by 30%. These measures led to an increase in satisfaction rates at individual offices and at the bank in general.



“*The number of Russians that deserve to be called investors in the full meaning of the word does not exceed one-two million people. This is a meagre part of the economically active population. The government is interested in increasing the number of retail investors in the country, and we in our turn are helping to achieve this. Now everyone can use a mutual investment fund to enter the financial market and buy Eurobonds, even with just RUB 1,000 in the account. The personal account makes it easy to monitor dynamics of investments at any time. Because of this openness, we have not only financially experienced and successful people as our customers, but also representatives of the middle class and even beginning, non-qualified investors, with any account size. We expect that integration with MTS will enable us to take up a significant share in the market of collective investments in the mass segment by increasing the percentage of retail investors in our portfolio to 30%.*

### IGOR BUSAROV

CEO of Sistema Capital

+21 notches

**WAS GAINED BY MTS BANK IN THE "PEOPLE'S RANKING" ON BANKI.RU IN 2018, MOVING FROM 47TH TO 26TH PLACE.**

## FRIENDS OF BANKS SERVICE



MTS Bank has created an account in the online service for banking customers "Friends of Banks" on Banki.ru. The purpose of the service is to establish a constructive dialogue between credit institutions and their customers.

Using a private forum on this popular platform, customers may contact MTS Bank's services and experts directly to share their ideas and proposals on improving products and services, their successful or unsuccessful experience of cooperation and to keep track of the bank's news.



“*Our services are based on trust, security and long-term investment. If a bank develops steadily, the movement towards greater transparency envisaged by MiFID II may encourage development of original, customised solutions. PSD2 allows any financial institution to service customers and offer them new products without opening accounts or transferring assets. All this creates significant advantages for banks' customers, since they can compare various offers in the market. Under such circumstances, personal relations with customers start playing the decisive role.*”

### SERGEY PCHELINTSEV

Managing Director at East-West United Bank

Other portfolio companies of the Corporation also work systemically on improving the experience of users of financial services, having established systems for addressing customers' complaints and requests. Special attention is paid to issues of compliance. EWUB is the only private bank with Russian capital that is licensed in accordance with the laws of Luxembourg and operates under the supervision of Luxembourg and European authorities, complying with all regulatory requirements, including MiFID II and PSD2 that came into force in 2018 and encourage European financial institutions to improve the quality of service and introduce a customer-oriented business model, based on high transparency.

### SUPPORT TO SMALL AND MEDIUM-SIZED BUSINESSES

In 2018, MTS Bank decided to adopt a new development strategy for the Small Businesses segment, which envisages creation of a single digital platform for servicing entrepreneurs. The bank has set itself the goal of creating a single ecosystem within the next three years to be able to offer its customers a full range of financial and business services through a "one-stop window".

In 2018, it became even easier and more convenient for the bank's customers to manage their accounts online via their smartphones: confirm transactions, get statements, send invoices and promptly contact the bank in case of any questions. The new SMS service allows individual entrepreneurs and legal entities to promptly receive information about cash receipts and writing-offs.

At the end of 2018, MTS Bank launched two new credit products for small and medium-sized companies: Credit Light, which allows a business owner to quickly get an unsecured consumer loan for any purpose as an individual, and Guarantee Online – a popular product among entrepreneurs engaged in procurement activities in accordance with federal laws No 44-FZ<sup>1</sup> and 223-FZ<sup>2</sup>, for providing a bank guarantee as security under a contract.

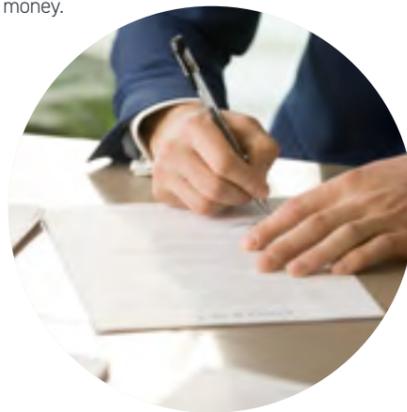
<sup>1</sup> Federal Law "On contracts in the area of procurement of goods, works and services for the government and municipal authorities" No 44-FZ dated 05 April 2013

<sup>2</sup> Federal Law "On procurement of goods, works and services by some types of legal entities" No 223-FZ dated 18 July 2011

### COOPERATION WITH THE FUND FOR THE DEVELOPMENT OF SMALL ENTERPRISES OF BASHKORTOSTAN

MTS Bank and the Fund for the Development of Small Enterprises of the Republic of Bashkortostan signed an agreement on cooperation under which MTS Bank's customers represented by small and medium-sized businesses will be able to receive financing/bank guarantees secured by the Fund. The goal of this partnership is to ensure that SMEs have equal access to credit resources and to develop infrastructure for the support of SMEs in the Republic of Bashkortostan. To receive financial aid under the fund's programme, entrepreneurs need to contact an MTS Bank office. After the application is approved, the customer gets a guarantee from the fund.

A trilateral guarantee agreement is concluded, the customer pays the fund's fee and gets the money.



### FINANCIAL LITERACY

A priority in the area of corporate social responsibility for MTS Bank and Sistema Capital is organisation of events promoting financial literacy and the personal finances management culture.

To increase financial literacy, Sistema Capital launched a blog, Plusonomics ([blog.mts.investments](http://blog.mts.investments)) in 2018, where it writes about investing rules and existing financial tools in an easy-to-understand way. Sistema Capital also took part in corporate Knowledge Days for Sistema's employees.

MTS Bank supported a number of federal and regional projects in 2018 that were aimed at spreading financial literacy among the population, and continued developing own initiatives in the area.

For the third successive year, MTS Bank organised an outreach campaign titled Financial Literacy for Everyone. The project is part of the international charity day #GivingTuesday.

As part of it, the bank accepts applications for giving lectures and organising trivia quizzes at schools, colleges, universities and orphanages. In 2018, the bank's employees delivered lectures on the world of finances and organised the True or False? interactive financial quizzes; the bank also held an entertaining quest, Kaleidoscope of Banking Professions, for students of Moscow school No 1571.

~400

### SCHOOL AND COLLEGE STUDENTS PARTICIPATED IN MTS BANK'S EDUCATIONAL CAMPAIGN IN 2018



MTS Bank also supported organisation of a nation-wide contest in financial literacy, financial markets and protection of rights of financial services users among high-school students for the fourth successive year. Year 2018 attracted an unprecedented number of participants – 15,000 students from all 85 regions of Russia sent in their applications. The bank's experts took part in the second stage of the creative off- and on-site competition.

MTS Bank also participated in a festival of financial literacy that was organised by the Government of Moscow, the Bank of Russia and Moscow's Department of Education. As part of the programme, volunteers from the bank organised an educational event at Moscow school No 1554.

### SOCIAL INITIATIVES AND PROJECTS

MTS Bank manages its CSR activities on the basis of the Policy on Charitable and Sponsor Activities. In 2014, it established a working group on charity, which ensures transparency of spending on social projects.

The most significant events organised with MTS Bank's participation in 2018:

- ▷ Romanciad, an international contest of young performance of Russian Romantic songs, which has been held under the auspices of UNESCO since 2017;
- ▷ Cosy Home for Grandmas and Grandpas – equipping the kitchen at the Sheremetyevo nursing home in Dolgoprudny, Moscow region;
- ▷ collection of donations for orphanages of the Khabarovsk region.

Many employees of the bank voluntarily participate in charitable events, visit orphanages and schools for special needs children. In 2018, 814 employees took part in charitable and volunteer events, while the number of such events held by MTS Bank's staff reached 47.

East-West United Bank has been organising social and cultural events in Luxembourg for several years, with view to support and promote the Russian language and culture, and develop relations between Russian-speaking and local communities. Since 2010, the bank has supported the Kalinka Russian elementary school of supplementary education in Luxembourg, which has over 170 students and over 25 employees. In 2018, Kalinka received about 350 copies of 88 textbook titles worth RUB 200,000.

Every year, EWUB organises a Russian Ball, one of the most outstanding charitable events in Luxembourg. In 2018, the organisers raised EUR 48,000 for the Russian charitable foundation Sunflower (Moscow) that helps children with primary immunodeficiency and autoimmune diseases, and for the Luxembourg division of the international charitable association SOS Villages d'Enfants Monde.

Together with the Russian Embassy in Luxembourg, East-West United Bank invariably sponsors the Russian stand at the Luxembourg International Bazaar. The Russian stand raised hundreds of thousands of Euros in the past ten years. The proceeds from sale of national souvenirs and dishes are traditionally donated to various public organisations that provide social assistance in Russia, such as Our Children Foundation (support to St Petersburg orphanages), a boarding school for blind and visually impaired children in St Petersburg, etc. In 2018, EWUB also sponsored the Charity Battle festival organised by the Friends Fund, which raised RUB 8.23m for charitable programmes in Russia.

~RUB12 m

WAS ALLOCATED BY MTS BANK ON CHARITY AND SPONSORSHIP IN 2018

x3

GROWTH OF NUMBER OF MTS BANK'S VOLUNTEER EVENTS IN 2018



# ANNEX

ABOUT THE REPORT	172
KEY AWARDS AND ACHIEVEMENTS OF SISTEMA GROUP	178
GLOSSARY AND ACRONYMS	182
AGGREGATES	186
COMPLIANCE WITH GRI AND UN SUSTAINABLE DEVELOPMENT GOALS	190
COMPLIANCE WITH THE UN GLOBAL COMPACT	197

## 1. ABOUT THE REPORT

GRI 102-50 Committed to the practice of annual disclosures of non-financial corporate reports. Sistema hereby presents its sixth consolidated sustainability report. The previous report for 2017 was published in Q4 2018. Prior to that, from 2006 on, the Corporation practised issuing social reports.

This report aims to inform the general public about the key lines and results of economic, environmental, and social activities of Sistema PJSC and its portfolio companies in the light of sustainability, society, and ecology. The Corporation sees non-financial reporting as a tool for regular monitoring of the Group's performance in the sphere of corporate social responsibility.

GRI 102-54 The preparation of annual non-financial reports is governed by an order by Sistema's President that determines the members of the cross-functional working group charged with the preparation of the report and the procedures that apply to such preparation. The Corporation encourages similar reporting initiatives of its key portfolio companies, and sustainability reports are now an established practice at MTS Group, Segezha Group, Detsky Mir, BPGC and Sistema Charitable Foundation. In accordance with best transparency practices, the companies provide their annual (combined) and sustainability reports with increasingly detailed information on management approaches, relief and environmental projects and their outcomes, and interaction with all sorts of stakeholders. To streamline the practices, Sistema is planning to devise and roll out a raft of corporate standards which will apply to non-financial information disclosure.

### REPORTING PRINCIPLES

This report has been prepared in accordance with the GRI Standards: Core option. The business model in terms of capitals concept is presented in accordance with the International Integrated Reporting Framework.

The Report also pays heed to:

- ▷ the UN Global Compact;
- ▷ the Social Charter of the Russian Business;
- ▷ the basic efficiency metrics and the indices "Responsibility and Transparency" and "Sustainable Development Vector" developed by the Russian Union of Industrialists and Entrepreneurs;
- ▷ Russian and global non-financial reporting practices of comparable companies (investment groups and conglomerates) as well as suggestions of the investment community and recommendations of ESG analysts;
- ▷ the annual corporate transparency rating of Russia's largest companies prepared by the Russian Regional Network for Integrated Reporting;
- ▷ the recommendations issued by the Non-Financial Reporting Board of the Russian Union of Industrialists and Entrepreneurs following the public verification of Sistema's 2017 Sustainability Report.

### CHOICE OF MATERIAL TOPICS FOR DISCLOSURE

When preparing this Report, we updated the list of 29 material sustainability topics compiled a year before on the basis of an online survey held among the representatives of the financial & investment community and rating agencies, registering a visible growth in the respondents' general concerns about ESG matters. The 17 questionnaires that came back were used to add new topics to the list.

GRI 102-21

GRI 102-46

### FULL LIST OF MATERIAL SUSTAINABILITY TOPICS<sup>1</sup>

Nº	Topic	Corresponding GRI topic
<b>Economic</b>		
1.	Economic & operational performance of Sistema and its portfolio companies (assets)	Economic Performance
2.	Sistema's contribution to the nation's technological leadership (R&D, innovations, hi-tech and knowledge-intensive industries)	Economic Performance. Local Communities
3.	Investing in infrastructure development and upgrades	Economic Performance
4.	Contribution to the nation's economic growth and social well-being, including tax payments and contributions to public pension funds, role in the resolution of priority social & economic issues (imports substitution; technological, drug, and food safety; export capacity)	Economic Performance
<b>Environment</b>		
<b>5.</b>	<b>Environmental policy and management systems</b>	
6.	Contribution to the evolution of "green" economy, sustainable production, and consumption	General Standard Disclosures
7.	Biodiversity preservation in regions where businesses operate	Biodiversity
8.	General investments in environmental protection	All environmental aspects
9.	Resource & energy efficiency (water, fuel, heat, and energy consumption across the Group, environmental impact reduction)	Energy. Water
10.	Impact on the climate (greenhouse and other emissions of portfolio companies, emission reduction programmes)	Emissions
11.	Data on effluents (water used, oil, fuel, and reagents spilled) and industrial waste of Sistema's assets, environmental impact reduction programmes	Effluents and Waste
<b>Society</b>		
<b>Labour Practices</b>		
<b>12.</b>	<b>Observance of labour and employment rights</b>	
13.	Sistema and portfolio companies as attractive businesses (including size of pay in specific regions, relief programmes for staff, share of staff hired from among local populations)	Market Presence
14.	Key characteristics of the staff of Sistema and its portfolio companies (headcount, gender and age structure, turnover rates, succession pool)	Headcount
15.	Occupational safety and health (work safety programmes, healthy lifestyle promotion, prevention of occupational injuries and professional disease)	Occupational Health & Safety
16.	Staff education and development (corporate training programmes, postgraduate education, length and focus of educational initiatives)	Training and Education
17.	Programmes implemented by Sistema and its portfolio companies to train young talents for the innovative sectors of the Russian economy	Training and Education
18.	Labour/management relations (openness and quality of communications, union agreements, staff assessment programmes)	Labour/Management Relations
<b>Human Rights</b>		
19.	Human rights, non-discrimination, and personal data protection	Non-discrimination. Freedom of Association and Collective Bargaining. Diversity and Equal Opportunity
20.	Corporate human rights awareness training, including for security staff	Security Practices
<b>Regional development and community interactions</b>		
21.	Charity and social investment	Indirect Economic Impacts
22.	Contribution to the development of local regions and communities (jobs, education, healthcare, culture, housing estates)	Local Communities
23.	Involvement in the development and implementation of public policies (federal and/or regional law, state projects and programmes)	Public Policy
24.	Social partnerships and results of cooperation with local communities, regional and local authorities	Local Communities
<b>Product Responsibility</b>		
25.	Health and safety of product & service consumers, including certification and quality control	Customer Health & Safety
<b>Management system</b>		
26.	<b>Role of senior governance bodies (CEO, management board, board of directors) in matters of sustainable development and corporate social responsibility</b>	
27.	<b>Remuneration of senior/executive management</b>	
28.	Responsible investment (principles and practices, including the assessment of non-financial risks)	General Standard Disclosures
29.	Business ethics, including anti-corruption practices and conflict of interest management	Anti-corruption
30.	Introduction of responsible practices in the Group's supply chains (policies, supplier assessment and development, SME support (local and otherwise)	Supplier Environmental Assessment. Supplier Assessment for Impacts on Society

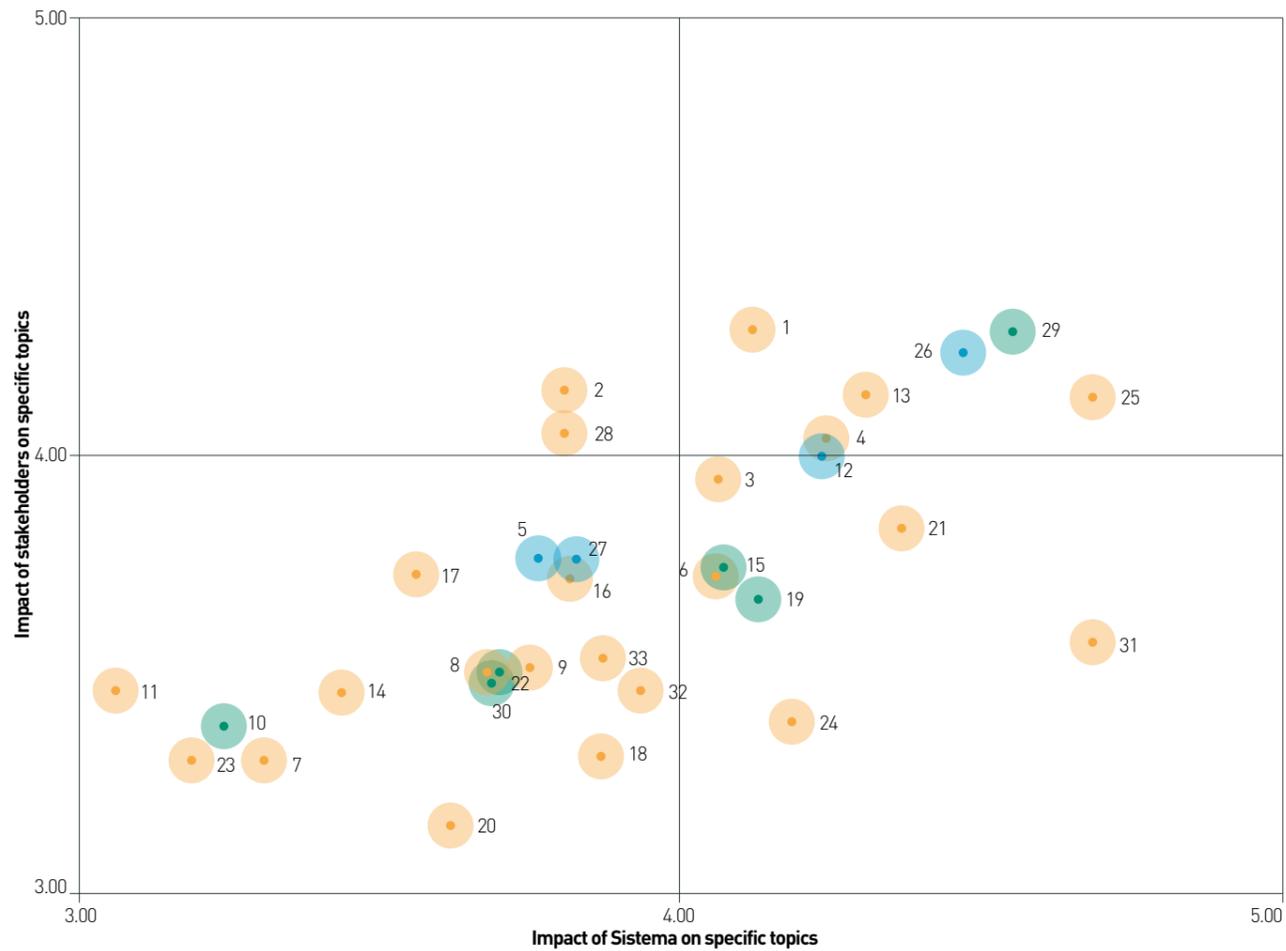
<sup>1</sup> The positions in bold type are new.

Nº	Topic	Corresponding GRI topic
31.	Labour law, environmental, tax, and other compliance	Society Compliance, Environmental Compliance
32.	Certification of management systems, compliance with national and international standards (industrial and otherwise)	General Standard Disclosures
33.	Involvement in the implementation of UN sustainable development goals (integration of SDG in business strategies and CSR, effect of Sistema Group on the achievement of goals)	General Standard Disclosures

The survey's results translated into a materiality matrix where the vertical axis represents the materiality of disclosure as assessed by stakeholders and the horizontal axis represents Sistema's contribution as assessed by its management.

All of the topics presented in the matrix are disclosed in this Report according to their materiality as assessed by stakeholders, with the more material topics being prioritised and disclosed at greater length than the less material ones.

**MATERIALITY MATRIX**



**GRI 102-42 KEY STAKEHOLDERS**

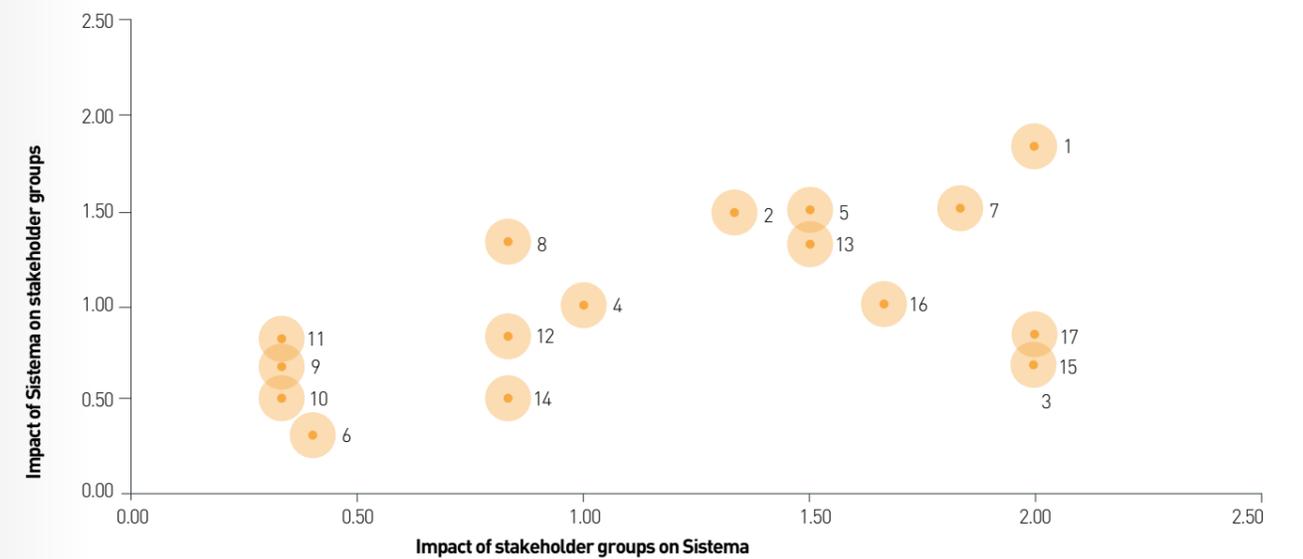
While the list of Sistema's stakeholders as determined by management in the course of the 2017 reporting campaign remains unchanged,

the working group charged with the report preparation revisited the assessed reciprocal impacts of Sistema and its various stakeholders, as represented in the new ranking chart.

**GRI 102-40 SISTEMA'S STAKEHOLDERS**

Stakeholder groups	Approach to stakeholder engagement
1. Shareholders and investors	2.2. Business model and asset management
2. Business partners (including suppliers and contractors)	3.6. Procurement 4. Sustainable development practices of portfolio companies
3. State authorities and regulators	3.2. Implementation of investment programmes
4. Business clubs (associations, unions)	3.1. Corporate governance highlights
5. Customers, consumers, clients	3.5. Ethics and anti-corruption efforts 4. Sustainable development practices of portfolio companies
6. International NGOs	1.5. Membership in advocacy organisations
7. Corporate management	2.2. Business model and asset management 3.7. HR management
8. Population in the regions of operations	2.1. Responsible investment policy 4. Sustainable development practices of portfolio companies
9. Academic community	4. Sustainable development practices of portfolio companies 2.1. Business model and development strategy
10. Schools	2.4. Social investment 4. Sustainable development practices of portfolio companies
11. Non-profit organisations and charities	2.4. Social investment 4. Sustainable development practices of portfolio companies
12. Environmental non-profits	3.8. Environmental impact 4. Sustainable development practices of portfolio companies
13. Personnel (including trade unions)	3.7. HR management 4. Sustainable development practices of portfolio companies
14. Professional associations	1.4. Membership in advocacy organisations 4. Sustainable development practices of portfolio companies
15. Regional and municipal authorities	2.1. Responsible investment policy 4. Sustainable development practices of portfolio companies
16. Media	2. Responsible investment 3.4. Risk management
17. Federal authorities	3.2. Implementation of investment programmes

**STAKEHOLDER RANKING CHART**

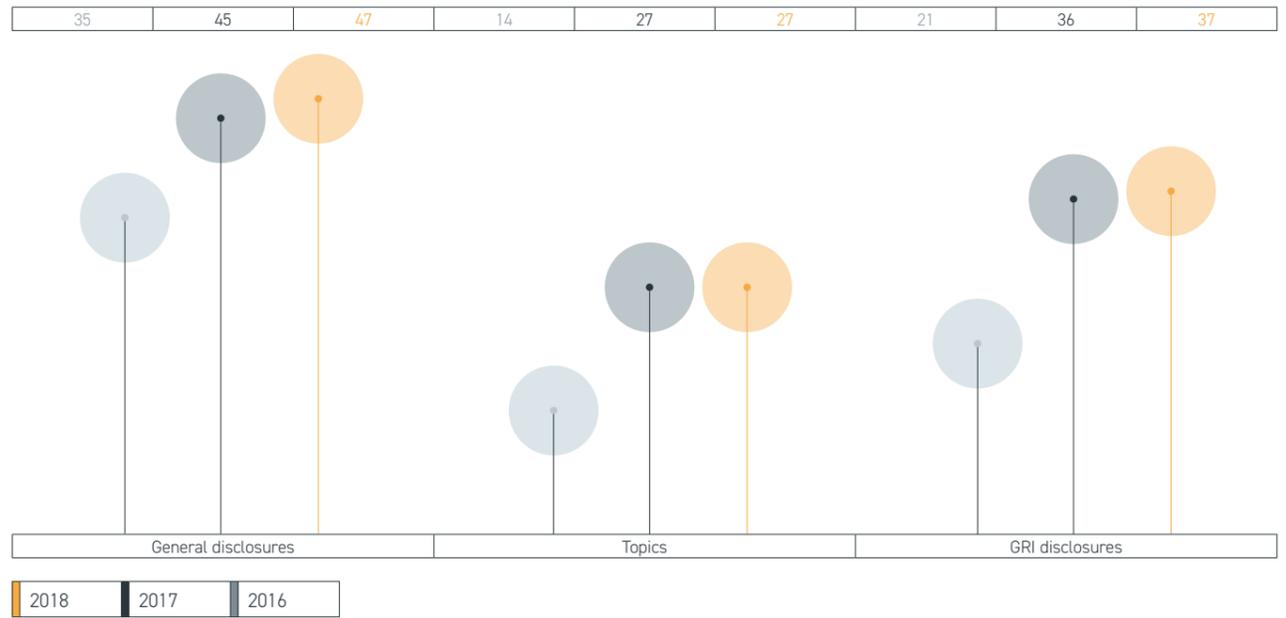


**GRI 103-1 REPORTING PERIMETER**

This report covers Sistema PJSC and its key portfolio companies, broadly in line with the perimeter of the corporation's consolidated financial reports.

Sistema's financial and economic results presented in the report are shown in a consolidated format on the basis of audited IFRS financial statements, if not otherwise provided for herein.

**NUMBER AND SHARE OF GRI ELEMENTS (DISCLOSED ON A CONSOLIDATED BASIS)**



**GRI 102-48** Some elements disclosed in previous non-financial reports were revised following a retrospective adjustment resulting from changes in the reporting policies of several portfolio companies as well as the elimination of previous technical inaccuracies (see table below).

Element	Reason for reformulation of previous language
401-1 New employees and employee turnover	Updated active turnover in 2016-2017
Spending on charity and social programmes	Modified 2016 reporting methodology

**GRI 102-48 EXTERNAL ASSURANCE**

Sistema's 2018 Sustainability Report has received external assurance from the Non-Financial Reporting Board of the Russian Union of Industrialists and Entrepreneurs.

**CERTIFICATE 2018**



According to the assurance statement, the report contains material information spanning all spheres of responsible business practices in accordance with the Social Charter of the Russian Business and provides sufficient detail about the Corporation's activities in the field.

We will consider the recommendations and comments received from the assurance provider during the preparation of our future reports.

**CONSIDERATION OF RECOMMENDATIONS RECEIVED FROM THE NON-FINANCIAL REPORTING BOARD OF THE RUSSIAN UNION OF INDUSTRIALISTS AND ENTREPRENEURS REGARDING SISTEMA'S 2017 SUSTAINABILITY REPORT**

Recommendation of the Non-Financial Reporting Board of the Russian Union of Industrialists and Entrepreneurs (excerpt <sup>1</sup> )	Consideration and fulfilment of recommendations in the 2018 Report
Broaden the scope of sustainability management matters covered, disclose measurable parameters, and include mid-term targets.	In addition to the 2030 Agenda for Sustainable Development, the Report covers National Projects that involve Sistema Group companies
Provide broader evidence of the impact of sustainability initiatives on financial performance of specific businesses.	Will consider doing so in future reports (in light of ES)
Enhance public initiatives for the purpose of report preparation, cover specific results of such interactions as well as offers received from stakeholders and response to them.	Performed an electronic survey among stakeholders (investors), included references to findings throughout the report. Conducted a workshop and a webinar for portfolio companies to discuss the goals and procedures of non-financial reporting.
Supplement investment data with efficiency metrics.	Duly noted and implemented, see Responsible Investment.
Along with consolidated (gross) environmental impact, report specific metrics in light of specific industries.	Will consider doing so in future reports.
Continue the coverage of Sistema's responsible investment activities, including its involvement in the Russian "green financing" market and issues of "green bonds".	Noted and implemented in part, see Responsible Investment.
Broaden the scope of segments covered by supply chain sustainability reporting.	Duly noted, see Sustainability Practices of Portfolio Companies (agriculture, timber industry)
Supplement information about the impact of social and charity investments with results of systematic efficiency assessments of social investments.	Duly noted and implemented in part, see Responsible Investment.
Elaborate on the correlation between Sistema's initiatives and the UN sustainable development goals through 2030, reflect the contribution of each such initiative to progress towards the goals, provide fuller disclosures on the integration of sustainable development goals in Sistema's strategy.	Duly noted and implemented, see cl.5.6 (Compliance with the UN Global Compact) of the Annex

<sup>1</sup> The full text of the External Assurance Statement for 2017 is available at [http://www.sistema.ru/fileadmin/user\\_upload/social\\_reports/zakluchenie\\_pssp\\_2017.pdf](http://www.sistema.ru/fileadmin/user_upload/social_reports/zakluchenie_pssp_2017.pdf)

GRI 103-3 **2. KEY AWARDS AND ACHIEVEMENTS OF SISTEMA GROUP**



**TELECOMS AND DIGITAL SERVICES**

**MTS Group**

MTS is among the leaders of Transparency International's organisational structure transparency ranking that encompassed 200 largest Russian businesses.

The company's website scooped wins at Moscow Exchange's annual reports contest for **Best Corporate Governance Disclosure and Best Website Design and Navigation**.

It also won second place in the 10th annual IR case study contest ARFI, where it presented a new website for investors.

The company also made the list of Headhunter's top 100 best employers.

It topped the 2018 **Leadership Index** of the Russian recruitment website Rabota.ru

MTS's relief project Generation M won the Grand Prix and the award for **Corporate and Relief Projects, Best Culture Project** from Eventiada IPRA Golden World Awards, the largest international telecom award-giving campaign in Eastern Europe.

Both MTS and its subsidiary MGTS became winners of the independent ECO BEST AWARD 2018, with MTS scooping wins for the best **Eco Packaging Solution and the Best Eco-Educational Project** for its volunteer puppet show The MTS Fairytale Mobile Theatre, and MGTS awarded for their comprehensive programme promoting environmental consciousness.

MGTS won the **Healthy Lifestyle** award of the Investor Association's People Investor competition in acknowledgement of the company's outstanding efficiency in addressing corporate and community challenges.

It also received an accolade as the **Best Course of Skills** of the 2018 Best E-Learning Competition for its signature project Children on the Internet.

The company took home the award dubbed **A Socially Responsible Business: Partner in Volunteer Initiatives** from the national competition 2018 Russia's Volunteer.

MTS also won third place among **Best Programmes Furthering UN Sustainable Development Goals** in the annual national ranking Leaders of Corporate Charity.



**HIGH TECHNOLOGY**

**RTI Group and Mikron**

The new microcontroller for IDs and smart cards, which was developed by NIIME and produced by Mikron, received the Gold Chip 2018 as the **Best ECB product 2017-2018**.

The Centre of National Technological Initiative of the Moscow Institute of Electronics **Sensorika**, which was founded in early 2018 in partnership with Mikron, won a competition for government funding allocated for national technological initiative centres on the basis of higher education and research organisations in the **Sensorics Technologies** category.

The prestigious national Best Corporate Media 2019 competition (sponsored by the Russian Association of Directors for Communications and Corporate Media) honoured not one but two projects by RTI Group companies: the Intelligence & Technology journal was awarded as **Best Industrial Magazine**, while RTI and the Historical Backdrop, a website providing affectionate and inspiring entries about Russia's greatest designers and scientists that shaped the nation's technological clout, was recognised as **Best Corporate Web Medium**.

**Kronstadt Group**

Kronstadt Group was awarded **For New Technology Creation** at the annual national contest Aircraft Maker of the Year.

It also won the **Best Innovative Product** prize in the Saint Petersburg Science & Higher Education Innovations Contest.



## FOREST INDUSTRY

### Segezha Group

Segezha Group scooped a **Best Debut** win at the 21st Moscow Exchange annual reports competition and made the 2018 100 best corporate reports list according to the League of American Communications Professionals (LACP).

The holding company made it to the top three winners of the voluntary Russian Environmental Pulp & Paper Company Index prepared by WWF Russia in conjunction with members of the Boreal Forest Platform and the National Rating Agency.

Segezha Packaging, which comprises Segezha Group's European assets manufacturing paper packaging, received a silver rank from EcoVadis, an international platform that assesses CSR standing of companies. Segezha Packaging made it to the Top 30 companies in the EcoVadis ranking.

Sokol Woodworking Plant, Segezha Group's flagship wooden housing construction asset in the Vologda region, received a European Environmental Product Declaration.

The Delovoy Peterburg newspaper awarded Segezha PPM as the 2018 **Industrial Leader of the Republic of Karelia**.



## HEALTHCARE AND PHARMACEUTICALS

### Medsi

Medsi's project **Be Healthy with Medsil** won second place in the category **Best Local Programmes Promoting Non-Profit Infrastructure Evolution, Charity and Volunteerism** of the prestigious national contest Leaders of Corporate Charity.

The company's telemedicine platform SmartMed (developed in cooperation with MTS) is recognised as the best medical tech solution in the **Public** category of the annual national Innovations contest.



## THE CONSUMER SECTOR

### Detsky Mir

Detsky Mir won prizes in four categories of the Little Golden Bear award established by the Association of Children's Goods Industry: **Company of the Year, Best Social Project, Online Store, and Best Footwear**.

As part of Russian Retail Week the research agency Infoline issued a ranking of top 100 retailers based on the results of 2017. The main criterion used by the agency was the companies' revenue. Detsky Mir moved up 4 notches in the ranking, to line 13.

Four senior executives of the company, including its CEO, made the retail professionals ranking Top Retail Managers.



## AGRICULTURE

### Steppe AgroHolding

Yuzhny Agricultural Complex (part of Steppe AgroHolding) won two medals at the tasting contest **Food of the Year** as part of the international World Food Moscow exhibition.



## REAL ESTATE

### Leader Invest

The property developer received an accolade for energy efficiency solutions in EkoTektonika, a national eco-friendly architecture and construction contest.

It was also awarded the golden civic-watch label **Reliable Russian Developer**.

The Pokrovsky Boulevard Residence won the **2018 GREEN AWARDS**, a national Russian contest honouring companies' achievements in eco-friendly development and energy efficiency.

Leader Invest's residential complex Krylya ("Wings") won first place in the national housing contest RREF AWARDS 2018 and scooped a **Buyers' Choice** prize from another housing award campaign, 2018 Property Highs, whose Grand Prix went to another project of the company, the Vsevolzhsky Residence.



## ELECTRIC POWER

### BPGC

BPGC once again won first place in two categories of the Russian Power Grids contest organised by the EnergoNews web portal as the nation's most socially responsible and informationally open grid company, while LLC Bashkirenergo made the top 20 ranking of reliable power suppliers.

BPGC won prizes in the 2018 Project Management Olympus, a national project management contest, in two categories: **Projects Enhancing Workflow Efficiency and Project Management Systems of State Corporations, State-Private Companies, For-Profit & Non-profit Organisations, and Development Institutes**.

Three companies of BPGC Group made the list of **Occupational Safety Leaders among Companies with 500+ Employees** and the Top 100 of the **Success and Safety** ranking prepared by the Russian Ministry of Labour and Social Affairs from over 15 thousand businesses across Russia.

The company's local arms Ishimbay and Ufa Power Grids rank first and second in the regional & municipal efficiency ranking, respectively.



## HOSPITALITY BUSINESS

### Cosmos Hotel Group

The company's Holiday Inn Express Moscow-Paveletskaya won recognition as the **Best Hotel Complex** in Commercial Real Estate Moscow Awards 2018. The prestigious Russian Hospitality Awards honoured another two of the group's assets, awarding The Altay Resort as **Best MICE Hotel** and **Best Family Hotel** and short-listing The Izumrudny Les among **Best Country Hotels and Discoveries of the Year**.



## FINANCE

### MTS Bank

A new R-Vision platform brought MTS Bank an award for **Banking Information Security** from the high-profile BIS Journal.

The bank also received an accolade from the national **IT LEADER Awards** for outstanding digitalisation achievements in the Commercial Banks category.

It was also recognised as the national leader in AI and machine learning according to the research dubbed **Artificial Intelligence in Banking** presented by the rating agencies RAEX and Expert RA.

The Retail Finance journal named the chair of the bank's management board **The Executive of 2018** and gave the company **the 2018 Readers' Choice** award.

### 3. GLOSSARY AND ACRONYMS

#### GLOSSARY

Agency for Strategic Initiatives (ASI)	independent Russian non-profit established by the Russian government to pursue projects of economic and social relevance.
Accelerator	a company whose business is in providing guidance and support to startups (residents).
Artificial Intelligence	the science and technology of creating intelligent machines and software simulating creative functions traditionally believed to be the domain of humans.
Big Data	a series of approaches to processing large and/or complex data sets to produce comprehensible and informative results.
Biofuel	fuel made from plant or animal biomass, metabolic by-products, or organic industrial waste.
Blockchain	a continuous sequence (linked list) of blocks of data built according to certain rules.
Building Information Modelling (BIM)	an approach to managing the life cycle of a building that provides for the collection and comprehensive processing of architectural/design, technological, economic, and other information about the building in the light of its many interrelations and causalities.
Category management (strategic management of categories)	organisation of procurement activities where the rules and principles of managing certain categories of goods and services are formalised as category strategies describing the most effective approach to purchasing in a given category.
Children's Rights and Business Principles of the UN Children's Fund (UNICEF)	a comprehensive set of principles defining what businesses can do to support children's rights and well-being.
Cloud Computing	data processing technologies in which computer resources are provided to an Internet user as an online service.
Compliance	a system of measures aimed to ensure responsible conduct of a company and its staff on the market; a system for control and management of risks arising out of any failure to observe law, regulations, requirements of controlling entities, rules of self-regulatory organisations, and other forms of business associations, as well as internal (corporate) documents.
Corporate Lawyers Association	Russia's only professional association of executives and experts of corporate legal departments of over 100 leading companies, both Russian and international.
Corporate Social Responsibility	a company's responsibility for the impact its decisions and actions have on society and the environment through transparent and ethical behaviour conducive to sustainable development, factoring in stakeholder expectations, and complying with applicable law and international standards of conduct, including the implementation of internal and external societal and environmental programmes.
Cybercrime	a crime that involves computers and/or networks and/or the Internet.
Digital Economy of the Russian Federation	a national programme scheduled through 2024 and approved by Russia's government in 2017, that sets goals and objectives in 6 basic areas: regulations for the digital environment, human reserves for the digital economy, digital technologies and projects, information infrastructure, information security, and digital state governance.
E-commerce	electronic commerce
Entomophages	beneficial insects used in agriculture for crop protection.
ESG risks	environmental, social, and governance risks
Financial Technology (fintech)	an industry represented by companies applying new technology in financial services and banking.
Fuel Pellets	biofuels made from compressed peat, wood waste, and rural refuse.
Fundraising	activity aiming to attract funds of households, businesses, or states for non-profit purposes, such as charity.
Generic Drug	a pharmaceutical drug that can replace an innovative medicine (i.e., contains the same quantity of the same active ingredient and has the same effect on the body), is not protected by any patent, and is allowed for sale after the patent on the original drug expires.
Global Depository Receipt (GDR)	a derivative security issued by a world-class depository bank and backed by a foreign issuer's equity.
Inclusive Environment	an environment conducive to successful integration of people with disabilities into society.
Independent Directors Association (IDA)	a professional association of independent corporate directors established in 2002 with the aim of helping Russian joint-stock companies drive value growth.

Internet of Things (IoT)	a concept of a computing network of objects (things) having embedded technologies for interaction with each other and the outer environment, where such network is viewed as capable of changing economic and social processes, including the removal of the need for human-to-human and human-to-computer interaction.
Key Performance Indicator (KPI)	an integrated indicator of activities of a structural unit or an organisation's officer, reflecting the achievement of targets set for a certain period.
Marketplace	a type of e-commerce site where consumers interact directly with suppliers.
Meetup	a meeting of professionals/like-minded people to share experiences in an informal setting.
Minimum-Till Farming	a scientifically validated farming model aimed to reduce energy consumption and labour intensity through decreased depth and area of tillage as well as through combining several technological operations (soil loosening, soil compaction, application of fertilisers and herbicides, sowing, etc.) in one process.
National Association of Corporate Directors (NACD)	the first and only self-regulatory organisation in Russia in the field of corporate governance, which unites leading Russian directors, top managers, and CEOs of companies.
National Association of Corporate Secretaries (NACS)	a non-profit union of corporate governance professionals from Russian companies.
Net Promoter Score (NPS)	a measure of customer loyalty to a product or company that is used as a predictor of repeat purchases.
No-Till Farming	a modern farming model where the soil is not wrought by traditional (mechanical) methods (i.e., by tillage) but rather is covered with mulch (plant cuttings)
POS (Point of Sale) Loans	a type of retail banking activity where loans are issued to finance purchases of consumer goods at the physical "point of sale".
Private Equity Investing	investing in mid-size or large non-listed companies.
Property Developer	a person or company involved in activities related to creating real estate properties or renovating/modifying existing buildings or land parcels in a way that increases their value.
Radio Frequency Identification (RFID) Tags	a technology where information encoded on tags may be transmitted to a scanner.
Risk Mitigation	activity to lessen the probability and effect of potential risks.
Road show	a tool for issuer-investor interactions prior to public offerings of equity.
Russian Institute of Directors (RID)	leading Russian research, consulting and educational centre for corporate governance.
Russian Managers Association	a Russian business association aiming to promote the professional development of the management community, propagate social responsibility standards, and enhance the country's integration with the global economy.
Russian Union of Industrialists and Entrepreneurs (RUII)	a non-profit organisation representing the interests of the business establishment across Russia and an association of the nation's largest companies.
Smart Grids	modern-day electrical grids using information and communication technology to control and meter energy transmission and consumption to enhance the efficiency, reliability, economic benefits, and sustainability of power distribution.
Social Charter of Russian Business	a code of basic principles of socially responsible business practices developed by the Russian Union of Industrialists and Entrepreneurs; it covers the company's interaction with employees, civil society organisations, government authorities and local communities, as well as environmental security.
Stakeholder	a person or company that can either affect or be affected by the Corporation.
Startup	a young innovative entrepreneurial venture which is typically at an early stage of operation (development or prospective marketing).
Substation	part of an electrical generation, transmission, and distribution system.
Sustainable Development	development of society/business which ensures that the living conditions improve, the impact on the environment remains within the economic capacity of the biosphere, and current needs are satisfied without harm to future generations.
System Integration	development of integral solutions for the computerisation and automation of an organisation's technological and business processes.
Telemedicine	the use of telecommunication and information technology to exchange medical information.
UN Global Compact	the largest initiative of the United Nations in the field of corporate social responsibility and sustainable development, which brings together 13,000 companies and organisations from 170 countries and 88 national networks that share and implement ten principles in the field of human rights, labour relations, environment and anti-corruption for sustainable and equitable socio-economic development.
UN Sustainable Development Goals (SDGs)	a set of 17 global goals in the field of sustainable development approved by the UN in 2015, which are expected to be the focus of the global community and business until 2030.
Venture Capital Investing	investing in new or growing companies with a high or moderate level of risk.
Very Large Scale Integration Circuit (VLSIC)	an electronic circuit of any complexity integrating more than 10,000 elements using a semiconductor crystal or film.

## ABBREVIATIONS

ACL	aerial cable line
AI	Artificial Intelligence
APMS	automated power metering system
ASEAN	Association of Southeast Asian Nations
ASI	Agency for Strategic Initiatives
BIM	Building Information Modelling: modelling physical, functional, technical, and economic parameters of a building
BoD	board of directors
BPD	bird protective device
CCI	Chamber of Commerce and Industry of the Russian Federation
CF	charitable foundation
DDS	due diligence system
DP	disabled people
EEF	Eastern Economic Forum
ERM	enterprise risk management
FAIRS	fraud and abuse incident recording system
FSC	Forest Stewardship Council
FTSE4Good	a market index for assessing the efficiency of companies against a set of internationally recognised corporate responsibility standards
GDP	gross domestic product
GDR	global depositary receipts
GPU	graphics processing unit
GRI	Global Reporting Initiative (sustainability reporting)
IDA	Intelligent Dairy Farmer's Assistant
IFRS	International Financial Reporting Standards
IIRC	International Integrated Reporting Council
IPO	initial public offering of equity through a stock exchange. GDRs included
IR	investor relations
ISO 14001	an ISO family of environmental management standards
ISO 26000: 2010	ISO Guidance on Social Responsibility
ISO 9001	an ISO family of quality management standards
JCI	Joint Commission International, a healthcare accrediting organisation
LSE	London Stock Exchange
LTE, LTE Advanced	Long-Term Evolution (a mobile communication standard)
MIF	mutual investment fund
ML	machine learning
NACS	National Association of Corporate Secretaries
NB-IoT	a mobile communication standard for telemetric devices with small data exchange volumes
NP	nonprofit
NPP	non-profit partnership
NPS	net promoter score (a consumer's willingness to recommend a product or service)
OHSAS 18001	Occupational Health & Safety Assessment Series
OMI	obligatory medical insurance
PFRF	Pension Fund of the Russian Federation
PJSC	public joint-stock company
PM	payload module

PPM	pulp & paper mill
PRC	People's Republic of China
PRI	principles for responsible investment
R&D	research and development
RAS	Russian Academy of Sciences
RDIF	Russian Direct Investment Fund
RFID	radio frequency identification where radio signals are used for recording data on and reading data off special transceivers (RFID tags)
RUII	Russian Union of Industrialists and Entrepreneurs
RusRisk	Russian Risk Management Society
SBS	Single Biometric System
SIAS	Single Identification & Authentication System
SME	small & medium-sized enterprises
SPIEF	St Petersburg International Economic Forum
SSIW	self-supporting insulated wire
UAE	United Arab Emirates
UICC	unified information computing centre
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organisation
VLSIC	very large scale integration circuit
VMI	voluntary medical insurance
VR/AR	virtual reality/augmented reality
WWF	World Wild Fund for Nature

4. AGGREGATES

STAFF PROFILE

STAFF STRUCTURE BY FORM OF EMPLOYMENT

Form of employment	2016	2017	2018
<b>Sistema</b>			
Full-time	95.8%	95.7%	97.6%
Part-time	4.2%	4.3%	2.4%
<b>The Group</b>			
Full-time	97.5%	96.5%	96.4%
Part-time	2.5%	3.5%	3.6%

STAFF STRUCTURE BY GENDER

Gender	2016	2017	2018
<b>Sistema</b>			
Women	50.7%	48.0%	47.8%
Men	49.3%	52.0%	52.2%
<b>The Group</b>			
Women	47.9%	48.4%	49.2%
Men	52.1%	51.6%	50.8%

STAFF STRUCTURE BY EMPLOYMENT CONTRACT & GENDER

Year	Permanent contracts		Term contracts	
	Men	Women	Men	Women
<b>Sistema</b>				
2016	48.7%	48.4%	0.9%	2.0%
2017	51.1%	45.7%	0.9%	2.3%
2018	51.5%	45.7%	0.7%	2.1%
<b>The Group</b>				
2016	47.3%	49.6%	1.6%	1.5%
2017	48.8%	46.6%	2.7%	1.9%
2018	48.3%	45.6%	2.9%	3.2%

STRUCTURE BY EMPLOYEE CATEGORY

Category of employees	2016	2017	2018
Senior management	0.4%	0.4%	0.5%
Middle management	2.8%	2.9%	3.2%
Junior management	10.6%	11.2%	10.6%
Grassroots	86.2%	85.5%	85.7%

STRUCTURE BY AGE

Age group	2016	2017	2018
<b>Sistema</b>			
<25 y.o.	3.6%	3.7%	1.7%
25-34 y.o.	36.1%	33.5%	31.1%
35-44 y.o.	31.1%	33.2%	38.2%
45-54 y.o.	16.7%	16.8%	18.1%
> 55 y.o.	12.5%	12.8%	10.9%
<b>The Group</b>			
<25 y.o.	3.6%	14.8%	10.8%
25-34 y.o.	36.1%	36.0%	33.6%
35-44 y.o.	31.1%	23.0%	26.1%
45-54 y.o.	16.7%	16.0%	17.4%
> 55 y.o.	12.5%	10.2%	12.1%

PROPORTION OF WOMEN IN MANAGEMENT AT SISTEMA PJSFC

Year	Senior management	Middle management	Junior management
2016	9.5 %	23.2 %	35.9 %
2017	5.2 %	22.4 %	36.6 %
2018	5.3 %	23.7 %	39.3 %

STRUCTURE BY EDUCATIONAL BACKGROUND

Year	Higher	Secondary professional (vocational)	General secondary (basic)
2016	97.0%	2.4%	0.6%
2017	97.2%	2.3%	0.6%
2018	97.6%	1%	1.4%

GRI 202-2

PERCENTAGE OF STAFF HIRED FROM THE LOCAL COMMUNITY

Year	Management headcount at Sistema PJSFC, FTEs	Percentage of management hired from the local community (Moscow city & region), %	Staff headcount, FTEs	Percentage of staff hired from the local community, %
2016	17	89	305	91
2017	18	94.7	318	90.3
2018	18	94.7	262	89.4

NEW EMPLOYEE HIRES AT SISTEMA IN 2018 BY GENDER, FTES

Year	Men	Women
2016	37	38
2017	49	32
2018	51	23

GRI 401-1

NEW EMPLOYEE HIRES AT SISTEMA BY AGE GROUP, FTES

Age group	2016	2017	2018
<b>Sistema</b>			
<25 y.o.	10	12	4
25-34 y.o.	35	37	25
35-44 y.o.	19	17	24
45-54 y.o.	7	8	16
> 55 y.o.	4	7	5
<b>Total</b>	<b>75</b>	<b>81</b>	<b>74</b>
<b>The Group</b>			
<25 y.o.	21,839	23,372	13,282
25-34 y.o.	19,498	19,636	15,967
35-44 y.o.	6,159	7,671	8,822
45-54 y.o.	2,890	4,002	4,430
> 55 y.o.	1,566	2,024	1,935
<b>Total</b>	<b>51,952</b>	<b>56,705</b>	<b>44,436</b>

GRI 404-1

TRAINING IN 2018 BY EMPLOYEE CATEGORY

Employee category	Employees that completed external on-site training, FTEs	Employees that completed internal on-site training, FTEs	Employee training hours	Yearly average training hours per employee
Senior management	230	88	13,936	1,572
Middle management	1,589	903	66,470	2,498
Junior management	3,641	5,141	234,384	2,629
Grassroots	18,840	20,096	808,868	4,901
<b>Total</b>	<b>24,300</b>	<b>26,228</b>	<b>1,123,659</b>	<b>11,599</b>

FULL-TIME EMPLOYEE TURNOVER AT SISTEMA BY GENDER, %

Year	Men	Women	Overall turnover
2016	16.1	17.8	16.9
2017	17.5	16.5	17.1
2018	49	37	44

VOLUNTARY TURNOVER BY AGE, %

Year	<25 y.o.	25-34 y.o.	35-44 y.o.	45-54 y.o.	>55 y.o.
2016	0.33	4	2	0	0.67
2017	1.55	3.42	1.24	1.55	0.62
2018	0	4.69	3.24	1.44	0.72

VOLUNTARY TO OVERALL TURNOVER, %

Year	Voluntary turnover	Voluntary to overall turnover
<b>Sistema</b>		
2016	7	42
2017	8	49
2018	10	23
<b>The Group</b>		
2016	19	38
2017	16	59
2018	18	65

AVERAGE WORKPLACE ABSENCE FOR ANY REASON, HOURS

Sistema	Hours of workplace absence	Hours of workplace absence per 1 Sistema employee
2016	4,949	16.7
2017	7,787	24.2
2018	5,409	19.5

GRI 404-3 **SISTEMA'S EMPLOYEES RECEIVING PERFORMANCE REVIEWS**

Employee category	No. of employees
Senior management	411
Middle management	1,255
Junior management	4,271
Grassroots	34,877
<b>Total</b>	<b>40,814</b>

**PARENTAL LEAVE AT SISTEMA**

Employee category	2016	2017	2018
No. of employees entitled to parental leave	19	17	28
No. of employees that took parental leave	19	17	22
No. of employees that returned to work after parental leave ended	6	4	6
Return to work rate <sup>1</sup>	85.7%	28.5%	100 %

GRI 401-3

GRI 102-38

Ratio of the annual total compensation for Sistema's highest-paid individual to the median annual total compensation for all employees in 2018 <sup>2</sup>	<b>18:1</b>
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**FINES AND NON-FINANCIAL PENALTIES IMPOSED ON THE GROUP'S COMPANIES IN 2018**

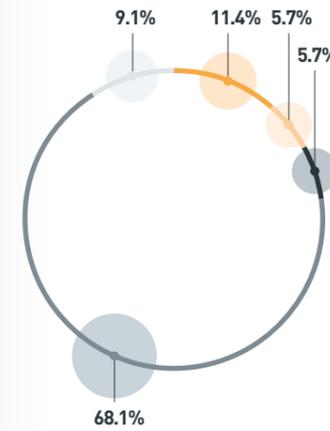
Fines and non-financial penalties	No. of fines	Amount of fines, RUB K	No. of non-financial penalties
	<b>681</b>	<b>25,139</b>	<b>93</b>
including those related to:			
environmental law and regulations	20	2,120	2
unfair competition and anti-monopoly irregularities	1	100	4
labour law irregularities	8	515	2
occupational safety irregularities	9	471	4
consumer rights irregularities, including those in product facts and marking	17	952	3
irregularities in marketing communications, including advertising	2	150	0
irregularities in requirements pertaining to health and safety effects of products	4	600	1
missed deadlines set by regulators	9	912	11
fire safety irregularities	15	1,746	53
irregularities in disease control & prevention (other than in products)	60	1,461	3
construction law irregularities	55	6,570	0
industrial safety irregularities	1	15	0
transport safety irregularities	357	222	0
other irregularities	123	9,305	10

**ENVIRONMENT**

GRI 306-7 **MATERIAL EMISSIONS OF NOX, SOX, AND OTHER SIGNIFICANT POLLUTANTS, TONNES<sup>1</sup>**

Types of emissions	2016	2017	2018
NOx	41,448.79	45,463.27	51,310.95
SOx	136,213.60	18,311.53	2,151.33
Persistent organic pollutants	2,592.00	2,592.00	1,730.00
Volatile organic pollutants	19,275.68	19,896.76	16,261.70
Hazardous air pollutants	2,714.61	2,714.60	2,714.37
Particulate pollutants	6,045.22	5,617.17	5,498.00
Other standard categories of air pollutants used in related regulations	3,517.42	3,769.91	3,483.17
<b>Total</b>	<b>212,018.05</b>	<b>98,568.05</b>	<b>83 149.52</b>

GRI 307-1 **FINES FOR NON-COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS IN 2018, BY ASSETS, %**



Steppe AgroHolding
Sitronics
Cosmos Hotel Group
Leader Invest
Other

**TOTAL WASTE BY HAZARD CLASS, TONNES**

GRI 306-2

Hazard class according to Russian regulations	2016	2017	2018
I Extremely hazardous	30.58	43.88	36.20
II Highly hazardous	133.25	48.21	313.30
III Moderately hazardous	786.07	1,193.37	3,151.55
IV Low-hazard	693,932.89	696,210.57	789,962.61
V Virtually non-hazardous	637,420.56	567,894.96	813,137.50
<b>Total</b>	<b>1,332,303.35</b>	<b>1,265,390.99</b>	<b>1,606,601.15</b>

<sup>1</sup> Return to work rate = Total employees that returned to work after parental leave ended / Total employees due to return to work after parental leave x 100  
<sup>2</sup> Ratio of the annual total compensation for the highest-paid individual to the median annual total compensation for all employees

<sup>1</sup> Consolidated data includes: Steppe AgroHolding, BPGC, RTI Group, and Cosmos Hotel Group

GRI 102-55 5. GRI CONTENT INDEX, INCLUDING COMPLIANCE WITH UN SUSTAINABLE DEVELOPMENT GOALS

GRI standard	Disclosure	Page and/or reference	UN SDG
<b>GRI 101:</b> Foundation 2016			
<b>GENERAL DISCLOSURES</b>			
<b>GRI 102:</b> General disclosures 2016	102-1 Name of the organisation	About the Corporation/Business overview	-
	102-2 Activities, brands, products, and services	About the Corporation/Business overview, Investment ecosystem	-
	102-3 Location of headquarters	About the Corporation/Business overview	-
	102-4 Location of operations	About the Corporation/Business overview	-
	102-5 Ownership and legal form	About the Corporation/Business overview	-
	102-6 Markets served	About the Corporation/Geographical footprint	-
	102-7 Scale of the organisation	Key metrics	-
	102-8 Information on employees and other workers	Human resources management, Aggregates	8
	102-9 Supply chain	Partners and contractors	-
	102-10 Significant changes to the organisation and its supply chain	No changes in the reporting period	-
	102-11 Precautionary Principle or approach	As a precautionary principle, Sistema aims to avoid any harm to the environment and preserve natural resources. The corporation performs assessments of environmental risks and takes necessary steps to prevent and mitigate adverse impact on the ecosystem and potential risks to the Corporation.	-
	102-12 External initiatives	About the Corporation/Business overview	-
	102-13 Membership of associations	About the Corporation/Membership in advocacy organisations	-
	102-14 Statement from senior decision-maker	Address of the Chairman of the Board of Directors	-
	102-15 Key impacts, risks, and opportunities	Risk management	-
	102-16 Values, principles, standards, and norms of behaviour	About the Corporation/Mission, strategy and values, Ethics and anti-corruption efforts	16
	102-17 Mechanisms for advice and concerns about ethics	Ethics and anti-corruption efforts	16
	102-18 Governance structure	Sistema's Annual Report for 2018/Corporate governance	-
	102-20 Executive-level responsibility for economic, environmental, and social topics	Responsible investment/Social responsibility and sustainable development policies and practices, Sistema's Annual Report for 2018/Corporate governance	-
	102-21 Consulting stakeholders on economic, environmental, and social topics	Information about the Report	16
	102-22 Composition of the highest governance body and its committees	Corporate governance highlights, Sistema's Annual Report for 2018/Corporate governance	5. 16

GRI standard	Disclosure	Page and/or reference	UN SDG
<b>GRI 102:</b> General disclosures 2016	102-23 Chair of the highest governance body	Corporate governance highlights, Sistema's Annual Report for 2018/Corporate governance	16
	102-24 Nominating and selecting the highest governance body	Corporate governance highlights, Sistema's Annual Report for 2018/Corporate governance	5. 16
	102-25 Conflicts of interest	Corporate governance highlights, Sistema's Annual Report for 2018/Corporate governance	16
	102-26 Role of highest governance body in setting purpose, values, and strategy	Corporate governance highlights, Sistema's Annual Report for 2018/Corporate governance	-
	102-27 Collective knowledge of highest governance body	Corporate governance highlights, Sistema's Annual Report for 2018/Corporate governance	4
	102-28 Evaluating the highest governance body's performance	Corporate governance highlights, Sistema's Annual Report for 2018/Corporate governance	-
	102-32 Highest governance body's role in sustainability reporting	Responsible investment/Social responsibility and sustainable development policies and practices	-
	102-35 Remuneration policies	HR management	8
	102-38 Annual total compensation ratio	Aggregates	8
	102-40 List of stakeholder groups	Information about the Report	-
	102-41 Collective bargaining agreements	HR management	8
	102-42 Identifying and selecting stakeholders	Information about the Report	-
	102-43 Approach to stakeholder engagement	Information about the Report	-
	102-44 Key topics and concerns raised	Information about the Report	-
	102-45 Entities included in the consolidated financial statements	Sistema's annual accounting report for 2018	-
	102-46 Defining report content and topic boundaries	Information about the Report	-
	102-47 List of material topics	Information about the Report	-
	102-48 Restatements of information	Information about the Report	-
	102-49 Changes in reporting	The disclosures of the 2018 report are made according to GRI standards, like last year	-
	102-50 Reporting period	Information about the Report	-
	102-51 Date of most recent report	Information about the Report	-
	102-52 Reporting cycle	Information about the Report	-
	102-53 Contact point for questions regarding the report	Contact details	-
	102-54 Claims of reporting in accordance with the GRI Standards	Information about the Report	-
	102-55 GRI content index	Annex/GRI index	-
	102-56 External assurance	n/a	-

GRI standard	Disclosure	Page and/or reference	UN SDG
<b>MATERIAL TOPICS</b>			
<b>Economic Performance</b>			
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	Information about the Report	-
	103-2 The management approach and its components	Responsible Investment/Economic Performance	1. 16
	103-3 Evaluation of the management approach	Responsible Investment/Economic Performance	-
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	Responsible Investment/Economic Performance	5. 7. 8. 9
	201-4 Financial assistance received from government	Sistema received no financial assistance from government in the reporting period	-
<b>Market Presence</b>			
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	Information about the Report	-
	103-2 The management approach and its components	HR management	5. 8. 16
	103-3 Evaluation of the management approach	HR management	-
GRI 202: Market presence 2016	202-1 Ratios of standard entry level wage by gender compared to local minimum wage	HR management	1. 2. 5. 8
	202-2 Proportion of senior management hired from the local community at significant locations of operation	Aggregates	8
<b>Indirect Economic Impacts</b>			
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	Information about the Report	-
	103-2 The management approach and its components	Social investments and charity	16
	103-3 Evaluation of the management approach	Social investments and charity	-
GRI 203: Indirect Economic Impacts	203-1 Infrastructure investments and services supported	Social investments and charity	2. 5. 7. 9. 11
	203-2 Significant indirect economic impacts	Social investments and charity	1. 2. 3. 8. 10. 17
<b>Procurement practices</b>			
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	Information about the Report	-
	103-2 The management approach and its components	Supply chain management and procurement	16
	103-3 Evaluation of the management approach	Supply chain management and procurement	-
<b>Anti-corruption</b>			
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	Information about the Report	-
	103-2 The management approach and its components	Ethics and anti-corruption efforts	16
	103-3 Evaluation of the management approach	Ethics and anti-corruption efforts	-
GRI 205: Anti-corruption 2016	205-2 Communication and training about anti-corruption policies and procedures	Ethics and anti-corruption efforts	16
	205-3 Confirmed incidents of corruption and actions taken	Ethics and anti-corruption efforts	-
<b>Energy</b>			
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	Information about the Report	12. 13. 14. 15
	103-2 The management approach and its components	Environmental impact	12. 13. 14. 15. 16
	103-3 Evaluation of the management approach	Environmental impact	12. 13. 14. 15
GRI 302: Energy 2016	302-1 Energy consumption within the organisation	Environmental impact	7. 8. 12. 13
	302-3 Energy intensity	Environmental impact	7. 8. 12. 13
	Reduction of energy consumption	Environmental impact	7. 8. 12. 13

GRI standard	Disclosure	Page and/or reference	UN SDG
<b>Water</b>			
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	Information about the Report	12. 13. 14. 15
	103-2 The management approach and its components	Environmental impact	12. 13. 14. 15. 16
	103-3 Evaluation of the management approach	Environmental impact	12. 13. 14. 15
GRI 303: Water 2016	303-1 Water withdrawal by source	Environmental impact	6. 8
	303-3 Water recycled and reused	Environmental impact	6. 8. 12
<b>Biodiversity</b>			
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	Information about the Report	12. 13. 14. 15
	103-2 The management approach and its components	Environmental impact	12. 13. 14. 15. 16
	103-3 Evaluation of the management approach	Environmental impact	12. 13. 14. 15
GRI 304: Biodiversity 2016	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Environmental impact	6. 14. 15
<b>Effluents and waste</b>			
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	Information about the Report	12. 13. 14. 15
	103-2 The management approach and its components	Environmental impact	12. 13. 14. 15. 16
	103-3 Evaluation of the management approach	Environmental impact	12. 13. 14. 15
GRI 305: Effluents and waste 2016	306-1 Water discharge by quality and destination	Environmental impact	12. 13. 14. 15
	306-2 Waste by type and disposal method	Aggregates	12. 13. 14. 15
<b>Emissions</b>			
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	Information about the Report	12. 13. 14. 15
	103-2 The management approach and its components	Environmental impact	12. 13. 14. 15. 16
	103-3 Evaluation of the management approach	Environmental impact	12. 13. 14. 15
GRI 306: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	Environmental impact	3. 6. 12. 13. 14. 15
	305-7 Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	Environmental impact	3. 6. 12. 14. 15
<b>Environmental compliance</b>			
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	Information about the Report	12. 13. 14. 15
	103-2 The management approach and its components	Environmental impact	12. 13. 14. 15. 16
	103-3 Evaluation of the management approach	Environmental impact	12. 13. 14. 15
GRI 307: Environmental compliance 2016	307-1 Non-compliance with environmental laws and regulations	Environmental impact, Aggregates	16
<b>Supplier environmental assessment</b>			
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	Information about the Report	12. 13. 14. 15
	103-2 The management approach and its components	Procurement	12. 13. 14. 15. 16
	103-3 Evaluation of the management approach	Procurement	12. 13. 14. 15

GRI standard	Disclosure	Page and/or reference	UN SDG
<b>Employment</b>			
<b>GRI 103:</b> Management approach 2016	103-1 Explanation of the material topic and its boundary	Information about the Report	-
	103-2 The management approach and its components	HR management	16
	103-3 Evaluation of the management approach	HR management	-
<b>GRI 401:</b> Employment 2016	401-1 New employees and employee turnover	Aggregates	5. 8
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	HR management	8
	401-3 Return to work and retention rates after parental leave, by gender	Aggregates	5. 8
<b>Labour/Management Relations</b>			
<b>GRI 103:</b> Management approach 2016	103-1 Explanation of the material topic and its boundary	Information about the report	-
	103-2 The management approach and its components	HR management	-
	103-3 Evaluation of the management approach	HR management	-
<b>GRI 402:</b> Labour/Management Relations 2016	402-1 Minimum notice periods regarding operational changes	HR management	-
<b>Occupational safety</b>			
<b>GRI 103:</b> Management approach 2016	103-1 Explanation of the material topic and its boundary	Information about the report	-
	103-2 The management approach and its components	HR management	16
	103-3 Evaluation of the management approach	HR management	-
<b>GRI 403:</b> Occupational Health and Safety 2016	403-1 Workers representation in formal joint management-worker health and safety committees	HR management	-
	403-4 Health and safety topics covered in formal agreements with trade unions	HR management	-
<b>Training and education</b>			
<b>GRI 103:</b> Management approach 2016	103-1 Explanation of the material topic and its boundary	Information about the report	-
	103-2 The management approach and its components	HR management	16
	103-3 Evaluation of the management approach	HR management	-
<b>GRI 404:</b> Training and education 2016	404-1 Average hours of training per year per employee	Aggregates	4. 5. 8
	404-2 Programs for upgrading employee skills and transition assistance programs	Human resources management, Aggregates	4. 5. 8
	404-3 Percentage of employees receiving regular performance and career development reviews	Aggregates	5. 8
<b>Diversity and Equal Opportunity</b>			
<b>GRI 103:</b> Management approach 2016	103-1 Explanation of the material topic and its boundary	Information about the report	-
	103-2 The management approach and its components	HR management	16
	103-3 Evaluation of the management approach	HR management	-
<b>GRI 405:</b> Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	HR management Aggregates	5. 8

GRI standard	Disclosure	Page and/or reference	UN SDG
<b>Non-discrimination</b>			
<b>GRI 103:</b> Management approach 2016	103-1 Explanation of the material topic and its boundary	Information about the report	-
	103-2 The management approach and its components	HR management Risk management	16
	103-3 Evaluation of the management approach	HR management Risk management	-
<b>GRI 406:</b> Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	None	5. 16
<b>Freedom of Association and Collective Bargaining</b>			
<b>GRI 103:</b> Management approach 2016	103-1 Explanation of the material topic and its boundary	Information about the report	-
	103-2 The management approach and its components	HR management Risk management	16
	103-3 Evaluation of the management approach	HR management	-
<b>GRI 407:</b> Freedom of Association and Collective Bargaining 2016	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk, and corrective actions taken	HR management	8
<b>Human rights assessment</b>			
<b>GRI 103:</b> Management approach 2016	103-1 Explanation of the material topic and its boundary	Information about the report	-
	103-2 The management approach and its components	Ethics and anti-corruption efforts	16
	103-3 Evaluation of the management approach	Ethics and anti-corruption efforts	-
<b>GRI 412:</b> Human rights assessment 2016	412-1 Operations that have been subject to human rights reviews or impact assessments		-
<b>Local communities</b>			
<b>GRI 103:</b> Management approach 2016	103-1 Explanation of the material topic and its boundary	Information about the report	-
	103-2 The management approach and its components	Social investment	16
	103-3 Evaluation of the management approach	Social investment	-
<b>GRI 413:</b> Local communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	Social investments and charity	-
	413-2 Operations with significant actual and potential negative impacts on local communities	No significant negative impact	1. 2
<b>Supplier social assessment</b>			
<b>GRI 103:</b> Management approach 2016	103-1 Explanation of the material topic and its boundary	Information about the report	-
	103-2 The management approach and its components	Procurement policy	16
	103-3 Evaluation of the management approach	Procurement policy	-

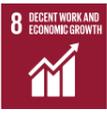
GRI standard	Disclosure	Page and/or reference	UN SDG
<b>Public Policy</b>			
<b>GRI 103:</b> Management approach 2016	103-1 Explanation of the material topic and its boundary	Information about the report	-
	103-2 The management approach and its components	Responsible investment Implementation of investment programmes	16
	103-3 Evaluation of the management approach	Responsible investment Implementation of investment programmes	-
<b>GRI 415:</b> Public Policy 2016	415-1 Political contributions	None	16
<b>Customer Health &amp; Safety</b>			
<b>GRI 103:</b> Management approach 2016	103-1 Explanation of the material topic and its boundary	Information about the report	-
	103-2 The management approach and its components	The consumer sector	16
	103-3 Evaluation of the management approach	The consumer sector	-
<b>GRI 416:</b> Customer Health & Safety 2016	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	No incidents	16
<b>Society compliance</b>			
<b>GRI 103:</b> Management approach 2016	103-1 Explanation of the material topic and its boundary	Information about the report	-
	103-2 The management approach and its components	Ethics and anti-corruption efforts	16
	103-3 Evaluation of the management approach	Ethics and anti-corruption efforts	-
<b>GRI 419:</b> Society compliance 2016	419-1 Non-compliance with laws and regulations in the social and economic area	No incidents	16
<b>Charity</b>			
<b>GRI 103:</b> Management approach 2016	103-1 Explanation of the material topic and its boundary	Information about the report	-
	103-2 The management approach and its components	Social investments and charity	16
	103-3 Evaluation of the management approach	Social investments and charity	-
-	Total expenditure on charity and relief projects	Social investments and charity	-
<b>Volunteering</b>			
<b>GRI 103:</b> Management approach 2016	103-1 Explanation of the material topic and its boundary	Information about the report	-
	103-2 The management approach and its components	Social investments and charity	16
	103-3 Evaluation of the management approach	Social investments and charity	-
-	Total volunteers, No. of volunteer events	Social investments and charity	-
-		Social investments and charity	-

## 6. COMPLIANCE WITH THE UN GLOBAL COMPACT

Areas	UN Global Compact principles	GRI disclosure	Reference in the report
<b>Human Rights</b>	Businesses should support and respect the protection of internationally proclaimed human rights	102-12 102-13	3.3. Risk management 3.2. Ethics and anti-corruption efforts 3.5. HR management
	Businesses should make sure that they are not complicit in human rights abuses		
<b>Labour Relations</b>	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining	102-41 407-1	3.3. Risk management 3.5. HR management
	Businesses should uphold the elimination of all forms of forced and compulsory labour	412-1	
	Businesses should uphold the effective abolition of child labour	412-1	
	Businesses should uphold the elimination of discrimination in respect of employment and occupation	406-1	
<b>Environment</b>	Businesses should support a precautionary approach to environmental challenges	102-11	3.6. Environmental impact 5.5. Compliance with GRI and Sustainable Development Goals
	Businesses should undertake initiatives to promote greater environmental responsibility	102-12 102-13	
	Businesses should encourage the development and diffusion of environmentally friendly technologies	302-4 307-1	
<b>Anti-corruption</b>	Businesses should work against corruption in all its forms, including extortion and bribery	205-2 205-3 419-1	3.2. Ethics and anti-corruption efforts

**GLOBAL AND NATIONAL PRIORITIES**

UN sustainable development goals	National priorities	The Corporation's role	Contribution of Sistema Group	GRI element
 <p><b>1. No poverty</b></p> <ul style="list-style-type: none"> <li>▷ reduce at least by half the proportion of men, women and children of all ages living below the poverty line;</li> <li>▷ ensure that the poor and vulnerable have equal rights to economic resources, access to new technologies and basic, including financial, services, including microfinance;</li> <li>▷ promote accelerated investment in poverty eradication activities.</li> </ul>	Labour productivity and support of employment Education	<p>Ensuring the level of wages above the minimum wage in the Russian Federation.</p> <p>Support for the underprivileged, including children, the elderly, and people with special needs:</p> <ul style="list-style-type: none"> <li>▷ charity programmes and projects</li> <li>▷ The grant contest Sistema in Support of Good Cause</li> <li>▷ The war veterans support programme Victory in Our Hearts</li> <li>▷ Social projects and volunteering</li> <li>▷ Lift to the Future</li> <li>▷ Participatel, a programme to collect donated gifts for orphans</li> </ul>	<ul style="list-style-type: none"> <li>○ ~RUB 4bn was allocated by the Corporation for social support and health insurance in 2016-2018</li> <li>○ <b>+11.2%</b> growth of investments in social support for employees since 2016</li> <li>○ The companies of the Group have donated <b>over RUB 840m</b> to charity</li> <li>○ <b>RUB 630m</b> collected by Sistema Charitable Foundation for charity events and children support projects</li> <li>○ <b>RUB 153m</b> used by Sistema Charitable Foundation to finance Social Projects &amp; Volunteering and Lift to the Future to benefit <b>50,000 people</b></li> </ul>	Indirect Economic Impacts
 <p><b>2. Zero hunger</b></p> <ul style="list-style-type: none"> <li>▷ By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality</li> </ul>	International cooperation and exports	<ul style="list-style-type: none"> <li>▷ Agricultural development: implementation of latest farming technology, increasing crop and milk yield</li> <li>▷ Increasing Russia's export capacity, including the use of online platforms for agricultural trading and logistics</li> </ul>	<ul style="list-style-type: none"> <li>○ Exports account for <b>66%</b> of the total agricultural sales in 2018, to the value of <b>RUB 16bn</b></li> <li>○ Output in crop farming = <b>1,155,000 t</b></li> <li>○ Output in dairy farming = <b>46,700 t</b></li> <li>○ Output in vegetable growing = <b>46,300 t</b></li> <li>○ Steppe uses no-till farming on some <b>30%</b> of its land and minimum-till farming, on another <b>30%</b></li> <li>○ Steppe AgroHolding entered into a partnership agreement with the Don State Agrarian University, aiming to implement modern-day agricultural solutions in daily operations</li> <li>○ Steppe AgroHolding embarked on designing its very own monitoring &amp; analysis system for crop farming applications</li> </ul>	Economic Performance
 <p><b>3. Good health and well-being</b></p> <ul style="list-style-type: none"> <li>▷ By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being</li> <li>▷ By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination</li> </ul>	Healthcare Demography Environment	<p>Healthcare development and promotion of healthy lifestyles:</p> <ul style="list-style-type: none"> <li>▷ expanding a state-of-the-art chain of clinics</li> <li>▷ introducing advanced technology to healthcare and pharma</li> <li>▷ contributing to the national cancer control strategy</li> <li>▷ providing people with affordable latest medicines</li> <li>▷ promoting fitness and sports among staff and local residents</li> </ul>	<ul style="list-style-type: none"> <li>○ <b>8.5m</b> people received care in Medsi clinics</li> <li>○ <b>more than 11,000</b> cancer patients received quality care</li> <li>○ Sistema, Medsi and Siemens Healthineers signed a trilateral memorandum to develop healthcare in Russia</li> <li>○ Sistema, Medsi, South Korea's leading healthcare operator Severance Hospital, and RDIF signed a cooperation agreement to establish a state-of-the-art diagnostic centre in Moscow</li> <li>○ Sistema, Russia-China Investment Fund and China's CapitalBio Technology agreed on the setup of Russia's biggest innovative biotech laboratory</li> <li>○ Sistema, RDIF and South Korea's MacroGen signed a trilateral agreement to develop biotechnology in Russia. A similar agreement was signed between Sistema, Medsi, RDIF, and the South Korean company Green Cross Cell</li> <li>○ Medsi Group and the St. Petersburg city administration signed an agreement of intent to improve healthcare and preserve human capital</li> <li>○ Medsi and MTS launched SmartMed, a telemedicine platform</li> <li>○ <b>&gt;3,500</b> telemedicine consultations provided to date</li> <li>○ Medsi was the first company in Russia to set up a Patient Care Centre</li> <li>○ Detsky Mir opened <b>110</b> play rooms in <b>38</b> locations across Russia</li> <li>○ VMI programmes further extended to <b>4,410</b> employees of <b>50</b> companies across the Group</li> <li>○ the 16th corporate Summer Games and 2nd Ski Race involved employees from <b>17</b> regions of Russia</li> </ul>	Indirect Economic Impacts
 <p><b>4. Quality education</b></p> <ul style="list-style-type: none"> <li>▷ By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university</li> <li>▷ By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship</li> <li>▷ By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development</li> </ul>	Education	<p>Development of supplementary education programmes, occupational guidance for schoolchildren, cooperation with universities, support of scientific and technical creative initiatives of the young and student projects, including:</p> <ul style="list-style-type: none"> <li>▷ the federal college student advanced learning programme Microelectronics. Level 157</li> <li>▷ development and rollout of specialised training programme in collaboration with colleges</li> <li>▷ internship programmes across Sistema Group</li> <li>▷ grant contest People of the Future</li> <li>▷ grant contest Career Department</li> <li>▷ grant contest Systemic Solution</li> </ul>	<ul style="list-style-type: none"> <li>○ <b>RUB 389.2m</b> invested by Sistema in personnel training and development</li> <li>○ <b>over 55,000 people</b> from <b>81</b> regions across Russia and <b>32</b> countries involved in Lift to the Future</li> <li>○ The Moscow Information Technology Department and Sistema PJSFC launched an educational project for disabled children</li> <li>○ MTS launched an interactive learning platform Smart University to help high school students prepare for unified state exams in English and math</li> <li>○ Mikron and Sistema Charitable Foundation signed agreements with Russia's leading universities--National Research University of Electronic Technology (MIET), Astrakhan State University (ASU), Ural Federal University (UFU), Tomsk State University (TSU), and Tomsk Polytechnic University (TPU)--to educate students about the Internet of Things and Robotics</li> <li>○ MTS launched Russia's first telemedicine programme at Moscow Polytechnical University</li> <li>○ Kronstadt Group in a tie-up with Moscow Aviation Institute and the Godikov College has embarked on developing a special training programme about unmanned aerial vehicles</li> </ul>	Training and Education

UN sustainable development goals	National priorities	The Corporation's role	Contribution of Sistema Group	GRI element
 <p><b>5. Gender equality</b>                      ▷ Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision making in political, economic and public life</p>	Demography Education	▷ Observance of human rights and pursuing gender equality in interactions with all stakeholders: staff, participants of social projects, beneficiaries, etc.	<ul style="list-style-type: none"> <li>○ Share of women among Group employees = <b>49%</b>, among new hires in 2018 = <b>55%</b>, among Sistema senior management = <b>5.3%</b>, among Sistema middle management = <b>23.7%</b>, among Sistema junior management = <b>39.3%</b></li> </ul>	Non-discrimination Employment Indirect Economic Impacts
 <p><b>6. Clean water and sanitation</b>                      ▷ By 2030, improve water quality by reducing pollution, eliminating dumping and minimising release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally</p>	Environment	▷ Spill prevention ▷ Wastewater treatment	<ul style="list-style-type: none"> <li>○ All companies of the corporation continuously control the quality of water and the composition of waste water at treatment facilities</li> <li>○ A system of treatment facilities at Karelia DSP (part of Segezha Group) purifies wastewater and reduces the content of formaldehydes by <b>35 times</b> and of iron by <b>20 times</b></li> <li>○ Leader Invest's Pokrovsky Boulevard Residence uses an ultraviolet water purification system, while landscape features minimise water consumption for irrigation purpose</li> </ul>	Water
 <p><b>7. Affordable and clean energy</b>                      ▷ By 2030, ensure access to affordable, reliable, sustainable and modern energy for all                      ▷ By 2030, increase substantially the share of renewable energy in the global energy mix                      ▷ By 2030, double the global rate of improvement in energy efficiency</p>	Environment	▷ Improving power grid infrastructure (including the use of Smart Grids), enhancing the energy efficiency of production, using alternative energy sources	<ul style="list-style-type: none"> <li>○ <b>19,300</b> consumers connected to BPGC grids in 2018, including <b>16,800</b> benefit-entitled users</li> <li>○ <b>RUB 4,579m</b> invested by BPGC in the development of the energy sector</li> <li>○ over 7 years of operation, power losses in 110-35 kV distribution grids have been reduced by <b>217m kWh</b>, and in 10-0.4kV grids, by <b>310m kWh</b></li> <li>○ BPGC installed <b>56,500</b> state-of-the-art power meters in 2018 (<b>251,000</b> installed since 2011)</li> <li>○ More than <b>50%</b> of Leader Invest's residential projects correspond to energy efficiency class A and up</li> <li>○ Segezha Group has commissioned a new biofuel production plant with a production capacity of <b>70,000 tonnes</b> of pellets a year</li> <li>○ The ongoing modernisation of the Vyatka Plywood Mill (part of Segezha Group) will result in a <b>20%</b> reduction in energy generation costs</li> </ul>	Energy
 <p><b>8. Decent work and economic growth</b>                      ▷ Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors                      ▷ Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalisation and growth of micro-, small- and medium-sized enterprises, including through access to financial services                      ▷ Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment                      ▷ By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products</p>	Labour productivity and support of employment Small & medium-sized business and support of sole proprietorship	▷ Timely payment of taxes, creation of jobs in the regions of operations, motivation and development of employees	<ul style="list-style-type: none"> <li>○ corporate tax payments have been growing at an average annual rate of <b>+2.6%</b> over the last 5 years</li> <li>○ Sistema's share in Russia's gross income = <b>0.9%</b></li> <li>○ Sistema's share in Russia's GDP = <b>0.75%</b></li> <li>○ Labour productivity = <b>RUB 6.47m</b> per FTE per year, <b>+29%</b> YoY</li> <li>○ <b>34.3%</b> of the Group's employees are covered by collective agreements</li> <li>○ <b>more than 44,000</b> new hires in 2018</li> <li>○ Some <b>140,000 people</b>, or <b>0.15%</b> of the total workforce of Russia, are employed by Sistema Group</li> <li>○ <b>over RUB 1.7bn</b> invested in occupational safety since 2016</li> <li>○ MTS Bank launched Digital Generation, a programme aiming to attract young IT specialists</li> <li>○ MTS Bank adopted a new development strategy for the Small Businesses segment, which envisages the creation of a single digital platform for servicing SME clients</li> </ul>	Economic Performance Employment
 <p><b>9. Industry, innovation and infrastructure</b>                      ▷ Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all                      ▷ Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending</p>	Residential housing and urban environment Science Digital economy Safe and quality motor roads Comprehensive plan for modernisation and expansion of trunk infrastructure	Development of mobile and fixed communication networks, power grids, infrastructure, and innovative urban solutions, including: ▷ Development and implementation of Safe City systems ▷ Development of comprehensive solutions to develop transport infrastructure across the country ▷ Development transport security technology ▷ Development of local social infrastructures ▷ Hi-tech R&D ▷ Modernisation of production assets ▷ Microelectronics, including RFID solutions for the internet of things	<ul style="list-style-type: none"> <li>○ <b>RUB 124bn</b> invested in fixed assets</li> <li>○ The corporation has authored <b>more than 170</b> inventions and launched <b>over 25</b> tech startups</li> <li>○ Sistema and the Russian Academy of Sciences (RAS) entered into an agreement to cooperate in science, technology, innovation, information analysis and expert reviews</li> <li>○ Sistema signed an agreement with RosCosmos to set up a space technology cluster</li> <li>○ Sistema signed an agreement with the Russian Export Centre, the Skolkovo Foundation, and Enterprise Singapore to create a Centre of Digital Innovations and ICT</li> <li>○ In 2018, MTS signed <b>13</b> agreements with local administrations across Russia to digitalise urban infrastructures</li> <li>○ The first commercial high-speed LAA network of Russia and Eastern Europe was launched in Ufa, where the peak downlink speed reached 1 Gbps</li> <li>○ MTS made high-speed Internet accessible at the airport of Novy Urengoy, the Urengoy River Port and the "Surgut-Novy Urengoy" highway.</li> <li>○ MTS has installed a new base station on Mount Elbrus, <b>3,888</b> metres above sea level (the highest-altitude mobile telecommunication point in Russia and Eastern Asia)</li> <li>○ MTS's office became home to GSMA's 27th global laboratory set up to test potentially disruptive B2B solutions in IoT</li> <li>○ MTS launched an MTS StartUp Hub to fast-track the implementation of breakthrough technology for business purposes</li> <li>○ Kronstadt Group received <b>2</b> patents and <b>4</b> certificates of public registration of world-class inventions</li> <li>○ The town of Segezha in Karelia now has a by-pass motor road, whose construction was partially financed by Segezha Group</li> </ul>	Economic Performance

UN sustainable development goals	National priorities	The Corporation's role	Contribution of Sistema Group	GRI element
 <b>10. Reduced inequalities</b> ▷ Empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status	Labour productivity and support of employment Small & medium-sized business and support of sole proprietorship Demography	▷ Projects targeting the residents of rural and remote communities, the disabled, cash-strapped households, and local workforce ▷ Promotion of the volunteer movement among staff across the Corporation's vast geographical footprint	<ul style="list-style-type: none"> <li>○ <b>34.2%</b> of all tax payments by Sistema are made to regional and local budgets</li> <li>○ the Group employs <b>1,015</b> people with disabilities</li> <li>○ <b>10%</b> of the Group's staff are involved in volunteer projects</li> <li>○ Some <b>800</b> relief and charity campaigns were supported by Sistema Group's staff</li> <li>○ <b>30</b> Russian regions were involved in the first national contest The Search Trajectory</li> <li>○ Steppe AgroHolding signed three long-term partnership agreements with communities of the Stavropol region</li> </ul>	Indirect Economic Impacts Market Presence
 <b>11. Sustainable cities and communities</b> ▷ By 2030, enhance inclusive and sustainable urbanisation and capacity for participatory, integrated and sustainable human settlement planning and management in all countries	Environment Residential housing and urban environment	Redevelopment, urban realm improvement, construction of housing estates, and development of innovative solutions for "smart" and safe cities	<ul style="list-style-type: none"> <li>○ <b>13,480 sq m</b> of properties commissioned by Leader Invest, <b>more than 20,000</b> people provided with modern-day quality housing</li> <li>○ Leader Invest is part of the Smart City working group of the Russian Construction Ministry</li> <li>○ Development of Digital Quarter firmware to control home and services</li> <li>○ JSC Sitronics has signed strategic partnership agreements with the local administrations of Kaluga, the Novosibirsk region, and the Samara region, to pursue projects in urban infrastructure digitalisation</li> <li>○ MTS Bank has set about upgrading the Moscow government's web portal mos.ru and the related mobile app Moscow Public Services after signing an agreement with the Moscow IT Department</li> <li>○ Segezha Group's project Living Cities has served to provide support to five Russian regions – the Republic of Karelia, the Krasnoyarsk region, the Vologda region, the Kirov region, and the Arkhangelsk region – in sports, environmental protection, education, and urban infrastructure.</li> </ul>	Economic Performance
 <b>12. Responsible consumption and production</b> ▷ By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse ▷ Encourage companies to adopt sustainable practices and sustainability reporting ▷ By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature	Environment	Improving production efficiency and sustainability and promoting the culture of responsible consumption among customers	<ul style="list-style-type: none"> <li>○ consumption of fuel an energy resources is down by an average of <b>-6.6%</b> over three years</li> <li>○ The Park Inn by Radisson became the region's first hotel to receive the international Green Key certificate (now held by 4 hotels of Cosmos Hotel Group)</li> <li>○ All of the group's hotels operating under the Holiday Inn Express brand use the comprehensive IHG Green Engage System</li> </ul>	Energy Water Effluents and waste Compliance with requirements
 <b>13. Climate action</b> ▷ Strengthen resilience and adaptive capacity to climate-related disasters in all countries	Environment	Greenhouse gas reduction, forest preservation & reforestation, introduction of new technology in agriculture	<ul style="list-style-type: none"> <li>○ Direct greenhouse gas emissions <b>down 9.3%</b> in 2018</li> <li>○ The ongoing modernisation of the Vyatka Plywood Mill (part of Segezha Group) will result in a <b>30%</b> reduction in air pollution</li> <li>○ Segezha PPM (part of Segezha Group) has commissioned a new multifuel boiler that uses bark waste, reaching an atmospheric emissions purification of <b>99.7%</b></li> <li>○ By putting in place a comprehensive crop monitoring &amp; analysis system, Steppe AgroHolding can cut he consumption of fuel by <b>30%</b>, and that of crop protection agents and fertilisers, by <b>10%</b>.</li> </ul>	Emissions
 <b>15. Life on Land</b> ▷ By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally	Environment	Responsible forest management and sustainable agriculture	<ul style="list-style-type: none"> <li>○ <b>22,900 ha</b> of woodland reforested by Segezha Group</li> <li>○ <b>86%</b> of Segezha Group's timber reserves are FSC-certified</li> <li>○ <b>NO</b> wild fires on controlled woodland in 2018</li> <li>○ Segezha Group companies (Sokol WP and Omega WP) received their first FSC certificates for controlled timber</li> <li>○ Segezha Group partnered up with St. Petersburg Forestry Research Institute to devise nationwide regulations for intensive and sustainable forest care in middle-aged forests of Karelia.</li> <li>○ Segezha Group and Kronstadt Group started rolling out an automated dispatching service that relies on neural networks and artificial intelligence to control logging</li> </ul>	Biodiversity
 <b>16. Peace and Justice, Strong Institutions</b> ▷ Substantially reduce corruption and bribery in all their forms	Education	Implementation of advanced corporate governance standards in daily operations of the Group's companies and anti-corruption initiatives, including: ▷ Building a single compliance system across the Group ▷ Acting on the Action Plan to Identify and Prevent Fraud at Sistema Group ▷ Implementing AntiFraud, an automated fraud and abuse incident reporting system	<ul style="list-style-type: none"> <li>○ Penalties imposed on Sistema Group in 2018 equal <b>0.0032%</b> of its consolidated revenue</li> <li>○ <b>100%</b> of middle and top managers at Sistema submitted ethics declarations</li> <li>○ <b>27,245</b> employees received training on anti-corruption procedures</li> <li>○ <b>100%</b> of Sistema's counterparties have been informed about its anti-corruption policies and methods</li> </ul>	Corporate governance Interaction with stakeholders Ethics and integrity Anti-corruption Compliance with requirements
 <b>17. Partnerships for the Goals</b> ▷ Encourage and promote effective public, public-private, and civil society partnerships, building on the experience and resourcing strategies of partnerships		Cooperation agreements with regions; partnerships with the state, non-profits and environmental organisations	<ul style="list-style-type: none"> <li>○ Sistema PJSFC and Administration of the Novosibirsk region entered into a cooperation agreement to create favourable conditions for the economic and social development of the region</li> <li>○ Sistema and the Government of the Yaroslavl region entered into a 5-year cooperation agreement to implement joint initiatives and projects aimed at creating favourable conditions for the economic and social development of the region</li> <li>○ Segezha Group signed new cooperation agreements with the administrations of the Republic of Karelia and the Sakhalin region</li> <li>○ Cosmos Hotel Group became a strategic partner of the Russian Association of Business Travel</li> </ul>	Interaction with stakeholders

## DISCLAIMER

The non-financial report of Sistema PJSFC for 2018 is unaudited; it contains consolidated data for the Group on the basis of information from portfolio companies, as well as statements that are only predictions regarding the production, financial, economic, social and environmental indicators of the Corporation's development.

Actual performance results and events covered in later reports may substantially differ from earlier ones due to changes in Sistema's portfolio structure, accounting policies of specific businesses, and markets, as well as various factors and risks related to the activities of the Corporation and its portfolio companies.

## CONTACT DETAILS

GRI 102-3

### REPORT CONTENT

GRI 102-53

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