

ANNUAL REPORT 2017  
ROSTEC STATE CORPORATION



**Rostec**



**Rostec**

*APPROVED  
by the Supervisory Board  
of the Rostec State Corporation  
(Minutes No. 3 dated april 19, 2018)*

# **ANNUAL REPORT 2017**



**Rostec**

*Rostec State Corporation*

## **PARTNER IN THE FUTURE 10 YEARS OF SUSTAINABLE GROWTH**

*CEO  
of the Rostec State Corporation  
**S.V. CHEMEZOV***

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2018

*Chief Accountant  
of the Rostec State Corporation  
**N.V. BORISOVA***

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2018

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## Dear colleagues,

The development of national technologies is a matter of Russian national security. On 1 March 2018, in his address to the Federal Assembly of the Russian Federation, the Russian President Vladimir Putin emphasised the following: “Our technological gap and dependence means low security and the reduction of national capabilities, ultimately leading to a loss of sovereignty.” And this is true, indeed.

As the global competition heats up, we will see a permanent demand for high-quality products and innovations. The unique products offered today by the enterprises of the Rostec State Corporation not only promote the national security and technological self-sufficiency of the state, but also improve the lives of average citizens.

The Rostec State Corporation was established ten years ago to assist in the development, production and export of advanced technology industrial products. Back then, the Corporation included many entities that survived the collapse of the Soviet industry but lost their accumulated technology capacities. They have since travelled a long and hard path, finally turning into profit-generating enterprises from the loss-makers they were when they first joined the Corporation.

As of today, the Corporation’s structure includes more than 700 enterprises and organisations. And the Corporation’s portfolio of assets continues to grow: in 2017, it was supplemented by Uralvagonzavod JSC Research and Production Corporation. There are certain efforts being implemented today to manage the enterprises of the Tractor Plants Group. These are bad and loss-making assets. The challenging situation of the Uralvagonzavod JSC Research and Production Corporation is connected with the unprofitability of its non-defence products, including, first of all, its railway cars. As regards the Tractor Plants Group, its crisis management plan was introduced as early as December 2016. But the enterprise could not return to profitability, despite the governmental support of agricultural equipment manufacturers. So, today we face serious tasks for rehabilitation of these production facilities and their market launch.

During their membership in the Rostec State Corporation, organisations have firmly taken up positions in the global arms market. The products of the Corporation’s organisations are supplied to 100 countries throughout the world, and the total volume of exports through Rosoboronexport JSC over the last decade has grown by more than 2 times – from 6 to 13.4 billion USD. Strong foreign economic ties not only ensure generations of profit from the sales to other countries, but also allows us to raise investments and source advanced technologies from abroad. Examples of successful bilateral partnership include the following alliances: AVTOVAZ PJSC and Renault-Nissan, KAMAZ PJSC and Daimler, VSMPO-AVISMA Corporation PJSC and Boeing, a joint venture of Russian Helicopters and AgustaWestland, Voronezh Tyre Plant and Pirelli, and a joint venture with Safran.

I would like to emphasise that, against the background of decreasing volumes of state defence orders, the Rostec State Corporation’s focus is on the growth of advanced technology products of the non-defence sector and production diversification. The techniques for civil helicopter engineering, the development of medical equipment, new materials, pharmaceutical products and many others are being mastered today.

Regarding import substitution, the Ministry of Industry and Trade of the Russian Federation has developed and approved respective industry programmes. Thus, as it follows from the action plan for the pharmaceutical industry, in 2017 only, the Corporation’s organisations increased their supplies of anti-flu vaccines by 22% and ensured an unprecedented national vaccination coverage of more than 46%. For the first time ever, the entire production cycle of all anti-flu vaccines ordered by the Ministry of Healthcare of the Russian Federation was based in Russian facilities. As early as 2020, Russia is expected to entirely phase out imports in vaccines production for the National Preventive Vaccine Calendar.

Commercial output and sales of cars built by the Corporation’s enterprises also grew in 2017. The top seller among the new trucks was KAMAZ PJSC, with a 45% share in the total volume of the truck market. LADA’s share reached its highest value in the last six years and was 20.5% of the domestic car market in 2017.

Speaking about the products and components previously purchased by the Corporation in Ukraine, the import substitution programme is expected to be completed by late 2018. The entire phase-out of European components is expected to be completed by 2020.

It should also be noted that the Rostec State Corporation is actively strengthening its positions in such promising areas as electronics and IT. The largest digital projects are indeed connected with the governmental objectives. The Corporation’s solutions are already being applied in the electronic government area, protected data storage systems and for the deployment of smart infrastructure of cities. The Corporation is busy developing an integrated IT infrastructure for the 2018 FIFA World Cup and ensuring IT penetration to Russian healthcare providers.

Labour productivity is another factor that can promote the competitiveness of the Corporation’s enterprises. In 2017, the Government of Russia approved the data sheet for the Labour Productivity Growth and Employment Support top-priority programme. It includes an entire package of measures for industrial enterprises. Moreover, the Industry Development Fund has approved a standard for issue of loans to industrial enterprises for the purposes of improving labour productivity.

Of course, the development standards set by the Rostec State Corporation are high. I believe that the next 10 years will be a driver of intense growth and development of the Corporation, an era when the Corporation will reach out to new and promising markets and one in which the key performance indicator of the Development Strategy will be achieved by entering the Top-5 largest industrial companies of the globe.

*Denis Valentinovich Manturov*

*Rostec State Corporation’s Supervisory Board Chairman*

# Address By The Chairman Of The Supervisory Board Of The State Corporation Rostec D.V. Manturov

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*The development of national technologies today is a matter of Russian national security*

*Denis Valentinovich Manturov —*

*CHAIRMAN OF THE SUPERVISORY BOARD*

# Address by the CEO of the State Corporation Rostec S.V. Chemezov

”

*In 2017, the Rostec State Corporation celebrated its 10-year anniversary. The total cost of the Corporation's assets has grown by three times exceeding 3 trillion rubles*

*Sergey Viktorovich Chemezov —*

CEO

## Dear colleagues,

In 2017, the Rostec State Corporation celebrated its tenth anniversary. A great deal of work has been done over that period, and the total value of the Corporation's assets has grown by three times since their transfer and exceeded 3 trillion rubles. More than 1 trillion rubles have been invested into the development of the Corporation's enterprises during the entire period of the Corporation's work. Another important factor is that the products of the Corporation's organisations are recognisable, sought for and competitive.

The revenue of the Corporation in the reporting year was about 1.6 trillion rubles, and the tax payments of our enterprises to the budget in 2017 were 136 billion rubles.

It is also important to note that the output of non-defence products has increased by more than 46% as compared to the previous year. The revenue from the sale of such products was 548 billion rubles. The output of non-defence products since the establishment of the Corporation has grown more than 4 times. The highest growth rates were demonstrated by the electronic cluster, as it is the top-priority cluster to enter the new, fast growing, technologically advanced markets of "smart" products.

The scope of military-technical cooperation remains the same: in 2017, supplies by Rosoboronexport JSC of military products to foreign customers totaled 13.4 billion USD.

In 2017, 319 organisations of the Rostec State Corporation were involved in the implementation of SDO. The Corporation carried out certain organisational and corporate measures aimed at increasing the role and responsibility of parent organisations of the holding companies when performing state defence orders and, as a result, it was generally fulfilled.

I would also like to note that the Corporation's organisations completed more than 30 investment projects aimed at the technological modernisation of production facilities under the state programmes.

We are also involved in large-scale efforts to attract private investors to the Corporation's assets. Thus, the capital of Russian Helicopters JSC was supplemented by the Russian Direct Investment Fund and a foreign investor. Foreign investors' shares in the Kalashnikov Concern JSC grew to 75%. A decision was made to attract investors to the High Precision Systems NPO JSC and the Technodinamika JSC, and the respective documents have been submitted to federal executive authorities.

6.9 billion rubles were allocated to finance corporate social initiatives in the reporting year. The Rostec State Corporation also paid significant attention to investments in human capital assets and the training of young specialists. The Corporation continued its cooperation with higher educational institutions and secondary – level vocational training institutions. Moreover, for promoting increased competence among its employees, the Corporation won silver at the all-Russian competition of the international WorldSkills movement, which aims to strengthen the image of blue-collar workers and develop the vocational training system.

The Rostec State Corporation also supports various socially important projects – contests and festivals for the youth and students. Besides, there were 43 sponsored projects in the spheres of culture and education, sports, science and technologies.

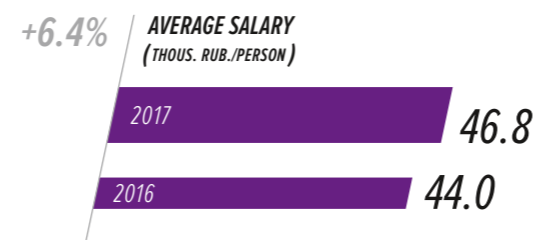
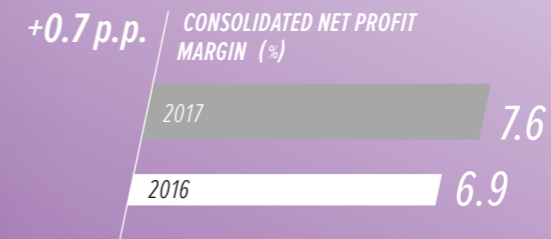
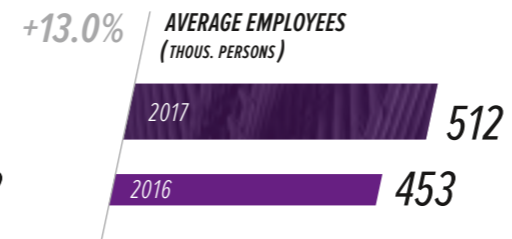
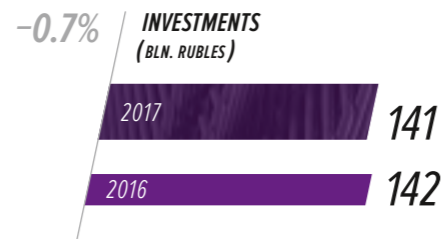
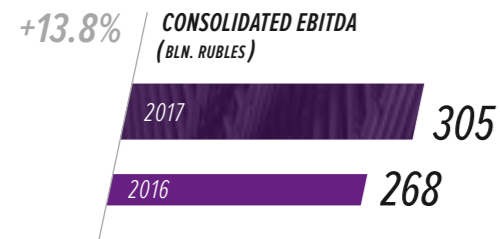
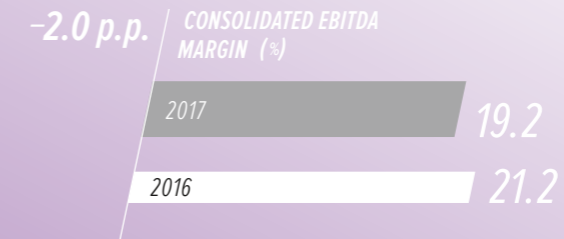
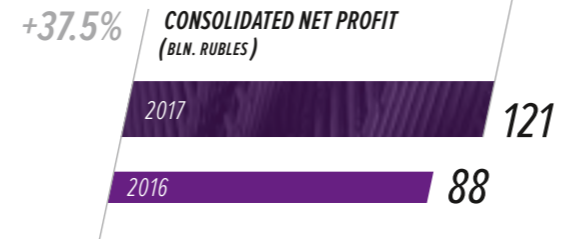
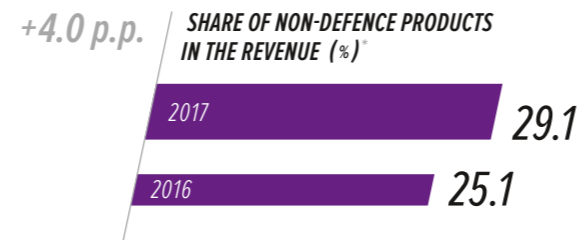
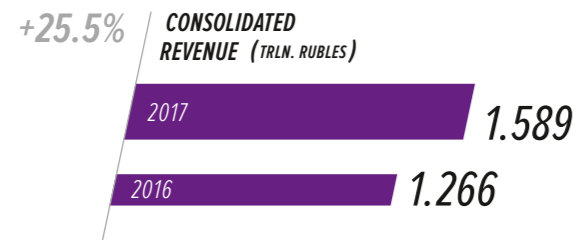
It is also important that all members of the Corporation continue to follow the path of environmental preservation. Against the background of the problems related to waste dumping and recycling in the country, especially in Moscow and the Moscow Region, in 2017 it was decided to build waste recycling plants. As expected, there will be four plants built in the Moscow Region and one plant in Kazan. Besides, we are busy developing environmentally friendly transport – an electric bus built by KAMAZ PJSC was tested in Moscow in March-September 2017. Negotiations are also under way for the supply of electric buses to Saint Petersburg, Kazan and Lipetsk. The Corporation is also developing and manufacturing electric charging stations for cars.

Both in the reporting year 2017, and in future years, the activities of the Rostec State Corporation and its organisations seek to improve the quality and competitiveness of its products, expand their market presence and engage strategic investors to guarantee the efficient growth of the Corporation.

*Sergey Viktorovich Chemezov*

*CEO of the Rostec State Corporation*

# 1. Key Performance Indicators in 2017



\*BASED ON AGGREGATE (NON-CONSOLIDATED) INDICATORS



Contents ↗  
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## 2. *Overview of the State Corporation Rostec*

# 121

*BILLION rubles*

OF CONSOLIDATED NET PROFIT  
IN 2017



## 2. Overview of the State Corporation Rostec

The Rostec State Corporation was established and exists under the Federal Law No. 270-FZ dated 23 November 2007 “On the State Corporation for Assistance to Development, Production and Export of Advanced Technology Industrial Product “Rostec”” (hereinafter referred to as the Federal Law No. 270-FZ). It is a legal entity formed in the Russian Federation as a state corporation.

Full name of the Corporation in the Russian language — **Государственная корпорация по содействию разработке, производству и экспорту высокотехнологичной промышленной продукции «Ростех».**

Abbreviated name in the Russian language — **Государственная корпорация «Ростех».**

Full name of the Corporation in the English language — **State Corporation for Assistance to Development, Production and Export of Advanced Technology Industrial Product Rostec.**

Abbreviated name in the English language — **State Corporation Rostec.**



*“Ten years ago, our task was to make the industry work again. Now we’re facing another, more ambitious challenge – increasing the quality of life through the development of “smart” products”  
(S.V. Chemezov)*

**The Corporation’s objective** is to assist in the development, production and export of advanced technology industrial products by ensuring support in the domestic and foreign markets for Russian organisations involved in the development and production of advanced technology industrial products, organisations whose decisions may be controlled by the Corporation due to the dominant participation in their authorised capitals, or under the agreements executed with such organisations (hereinafter referred to as the Corporation’s organisations) by attracting investments in the organisation of various industry sectors, including the defence industry sector, and participation in social and other projects of public interest while acting in the best interests of the state and the society as per Federal Law No. 270-FZ, other federal laws and resolutions of the President of the Russian Federation.

#### Information on the state registration:

Certificate of state registration: series 77, number 011483840, issued by the Moscow Federal Tax Service Directorate dated 3 December 2007

Primary State Registration Number (OGRN): 1077799030847, date of registration: 3 December 2007

INN (Taxpayer Identification Number) / KPP (Tax Registration Reason Code) 7704274402/770401001

#### Auditor of the Rostec State Corporation:

Name:

RSM RUS Limited Liability Company

OGRN (Primary State Registration Number): 1027700257540; INN/KPP: 7722020834/772901001.

119285 Moscow, ul. Pudovkina, 4

#### Contact details:

Registered office of the Corporation:

119991 Moscow, Gogolevsky b-r, 21, building 1.

Business address of the Corporation:

119048 Moscow, ul. Usacheva, 24

Telephone: (495) 287-25-25

Fax: (495) 987-65-74, 987-65-73

Website: [www.rostec.ru](http://www.rostec.ru)

# > 700

## ORGANISATIONS

*included in the management structure of the Corporation*



# 2.1 Organisational chart of the State Corporation Rostec

## Organisational chart

The organisational chart of the Rostec State Corporation was approved by the resolution of the Corporation's Supervisory Board on 20 December 2017 (minutes No. 17).

## Assets management structure

Total number of organisations included in the management structure of the Corporation: more than 700.

The Corporation's organisations are consolidated into holding companies (integrated structures) by various defence and civil

industry sectors (including the aviation industry, ammunition and special chemistry industry, arms industry and electronic industry) or are under the direct control of the Corporation.

14  
15



## 2.2 *Supervisory Board of the State Corporation Rostec*

The Supervisory Board is the supreme management body of the Rostec State Corporation and is accountable for the company's strategic development. In 2017, there were 17 meetings of the Supervisory Board. As of 31 December 2017, the Corporation's Supervisory Board includes the following members:



**Denis Valentinovich Manturov**

*MINISTER OF TRADE AND INDUSTRY OF THE RUSSIAN FEDERATION, CHAIRMAN OF THE SUPERVISORY BOARD*

**2003–2007** — CEO of the Oboronprom United Industrial Corporation JSC

**2007–2008** — Deputy Minister of Industry and Energy of the Russian Federation

**2008–2012** — Deputy Minister of Industry and Trade of the Russian Federation

**2012–present** — Minister of Industry and Trade of the Russian Federation



**Yuriy Ivanovich Borisov**

*DEPUTY MINISTER OF DEFENCE OF THE RUSSIAN FEDERATION*

**1998–2004** — CEO of the Module Scientific and Technical Centre

**2004–2007** — Head of the Electronic Industry and Management Systems Department of the Federal Industry Agency

**2007–2008** — Deputy Director of the Federal Industry Agency

**2008–2011** — Deputy Minister of Industry and Trade of the Russian Federation

**2011–2012** — First Deputy Chairman of the Military and Industrial Commission of the Government of the Russian Federation

**2012–present** — Deputy Minister of Defence of the Russian Federation



**Larisa Igorevna Brycheva**

*AIDE TO THE PRESIDENT OF THE RUSSIAN FEDERATION – HEAD OF THE STATE LEGAL ADMINISTRATION OF THE PRESIDENT OF THE RUSSIAN FEDERATION*

**1993–1999** — Head of the Department of the Administration of the President of the Russian Federation, Head of the Executive Office of the Plenipotentiary Representative of the President of the Russian Federation in the Federal Assembly of the Russian Federation, Deputy Director of the Main State Legal Administration of the President of the Russian Federation

**1999** — Head of the Main State Legal Administration of the President of the Russian Federation

**2004–present** — Aide to the President of the Russian Federation – Head of the State Legal Administration of the President of the Russian Federation



**Sergey Borisovich Ivanov**

*SPECIAL REPRESENTATIVE OF THE PRESIDENT OF THE RUSSIAN FEDERATION ON THE ISSUES OF ENVIRONMENTAL ACTIVITIES, ENVIRONMENT AND TRANSPORT*

**1999–2001** — Secretary of the Security Council of the Russian Federation

**2001–2007** — Minister of Defence of the Russian Federation

**2007–2008** — First Deputy Chairman of the Presidential Administration of the Russian Federation

**2008–2011** — Deputy Chairman of the Presidential Administration of the Russian Federation

**2011–2016** — Head of the Presidential Administration of the Russian Federation

**2016–present** — Special Representative of the President of the Russian Federation on the Issues of Environmental Activities, Environment and Transport



**Igor Evgenievich Levitin**

*AIDE TO THE PRESIDENT OF THE  
RUSSIAN FEDERATION*

**2004–2012** — Minister of Transport of the Russian Federation

**2012–2013** — Adviser to the President of the Russian Federation

**2013–present** — Aide to the President of the Russian Federation



**Vladimir Evgenievich Ostrovenko**

*DEPUTY DIRECTOR OF THE PRESIDENTIAL  
ADMINISTRATION OF THE RUSSIAN FEDERATION*

**2011–present** — Head of the Protocol of the Chairman of the Russian Government - Deputy Director of the Central Office of the Russian Government

**2012–2016** — Head of the Protocol of the Russian President

**2016–present** — Deputy Director of the Presidential Administration of the Russian Federation



**Anton Germanovich Siluanov**

*MINISTER OF FINANCE OF THE RUSSIAN  
FEDERATION*

**2005–2011** — Deputy Minister of Finance of the Russian Federation

**2011–present** — Minister of Finance of the Russian Federation



**Dmitry Evgenievich Shugaev**

*DIRECTOR OF THE FEDERAL SERVICE FOR  
MILITARY-TECHNICAL COOPERATION*

**2001–2008** — Deputy CEO of the Rosoboronexport Federal State Unitary Enterprise

**2008–2009** — Head of the Central Office of the CEO of the Rostekhnologii State Corporation

**2009–2017** — Deputy CEO of the Rostec State Corporation

**2017–present** — Director of the Federal Service for Military-Technical Cooperation



**Sergey Viktorovich Chemezov**

*CEO  
OF THE ROSTEC STATE CORPORATION*

**1988–1996** — Deputy CEO of the Sovintersport Foreign Trade Association

**1996–1999** — Director of the Foreign Economic Administration of the Administrative Department of the President of the Russian Federation

**1999–2001** — CEO of the Promexport Federal State Unitary Enterprise

**2001–2007** — CEO First Deputy, CEO of the Rosoboronexport Federal State Unitary Enterprise

**2007–present** — CEO of the Rostec State Corporation

## 2.3 Management Board of the State Corporation Rostec

The Management Board of the Corporation is a collegial executive body of the Corporation accountable for the key management decisions that directly affect the strategic objectives of the Corporation. In 2017, there were 89 meetings of the Management Board.

As of 31 December 2017, the Corporation's Management Board includes the following members (as approved by the Supervisory Board):



**Sergey Viktorovich Chemezov**

*CEO OF THE ROSTEC STATE CORPORATION*

- 1988–1996** — Deputy CEO of the Sovintersport Foreign Trade Association
- 1996–1999** — Director of the Foreign Economic Administration of the Administrative Department of the President of the Russian Federation
- 1999–2001** — CEO of the Promexport Federal State Unitary Enterprise
- 2001–2007** — CEO First Deputy, CEO of the Rosoboronexport Federal State Unitary Enterprise
- 2007–present** — CEO of the Rostec State Corporation

**Mr. Chemezov is a member of the boards of directors and supervisory boards of the following large companies:**

- VSMPO-AVISMA CORPORATION, PJSC
- KAMAZ PJSC
- Rosoboronexport JSC
- Uralkali PJSC
- United Rocket and Space Corporation OJSC
- International Financial Club Joint-Stock Commercial Bank OJSC
- Aeroflot – Russian Airlines PJSC
- ROSCOSMOS State Corporation for Space Activities
- Alliance Rostec AUTO BV Joint Venture



**Vladimir Vladimirovich Artyakov**

*CEO FIRST DEPUTY OF THE ROSTEC STATE CORPORATION*

- 2000–2006** — Deputy CEO of the Rosoboronexport Federal State Unitary Enterprise
- 2005–2007** — Chairman of the Board of Directors of AVTOVAZ, CEO of the AVTOVAZ Group
- 2007–2012** — Governor and Chairman of the Government of the Samara Region
- 2012–2014** — Deputy CEO of the Rostec State Corporation
- 2014–present** — CEO First Deputy of the Rostec State Corporation



**Nikolay Anatolievich Volobuev**

*DEPUTY CEO OF THE ROSTEC STATE CORPORATION*

- 2004–2006** — Deputy Director of the Federal Customs Service
- 2006–2007** — Director for Special Commissions of the Rosoboronexport Federal State Unitary Enterprise
- 2007–present** — Deputy CEO of the Rostec State Corporation



**Igor Nikolaevich Zavyalov**

*DEPUTY CEO OF THE ROSTEC STATE CORPORATION*

- 1999–2002** — Deputy Chairman of the Bank for Development and Foreign Economic Affairs (Vnesheconombank) State Corporation
- 2002–2007** — Deputy Chairman of the Board of Vneshtorgbank
- 2007–present** — Deputy CEO of the Rostec State Corporation





**Dmitry Yurievich Lelikov**

*DEPUTY CEO  
OF THE ROSTEC STATE CORPORATION*

**2004–2012** — CEO First Deputy of the Oboronprom United Industrial Corporation JSC

**2012–2016** — CEO of the Oboronprom United Industrial Corporation JSC

**2016–present** — Deputy CEO of the Rostec State Corporation



**Aleksandr Yurievich Nazarov**

*DEPUTY CEO  
OF THE ROSTEC STATE CORPORATION*

**2010–2011** — Deputy Director of the Economic Security Department of the Ministry of Internal Affairs of the Russian Federation

**2011–2014** — Adviser to the CEO of the Rostec State Corporation

**2014–2015** — Managing Director for Distressed Assets of the Rostec State Corporation

**2015–2017** — Managing Director for Non-Core and Distressed Assets of the Rostec State Corporation

**2017–present** — Deputy CEO of the Rostec State Corporation



**Oleg Nikolaevich Evtushenko**

*EXECUTIVE DIRECTOR  
OF THE ROSTEC STATE CORPORATION*

**2011–2012** — Director for Development of the VTS-Service LLC

**2012–2013** — Undersecretary, Deputy Director of the Foreign Economic Relations Department, Ministry of Industry and Trade of the Russian Federation

**2013–2016** — Head of the Central Office of the CEO of the Rostec State Corporation

**2016–present** — Executive Director of the Rostec State Corporation



**Sergey Aleksandrovich Kulikov**

*INDUSTRIAL DIRECTOR OF THE ELECTRONIC CLUSTER  
OF THE ROSTEC STATE CORPORATION*

**2009–2013** — Head of the Central Office of the CEO of the Rostec State Corporation

**2013–2016** — Executive Director of the Rostec State Corporation

**2015–present** — Industrial Director of the Electronic Complex of the Rostec State Corporation



**Anatoly Eduardovich Serdyukov**

*INDUSTRIAL DIRECTOR OF THE AVIATION CLUSTER  
OF THE ROSTEC STATE CORPORATION*

**2007–2012** — Minister of Defence of the Russian Federation

**2012–2015** — CEO of the Federal Research and Testing Centre of Machine Engineering

**2015–present** — Industrial Director of the Aviation Cluster of the Rostec State Corporation



**Sergey Borisovich Abramov**

*INDUSTRIAL DIRECTOR FOR THE ARMS, AMMUNITION AND  
SPECIAL CHEMISTRY OF THE ROSTEC STATE CORPORATION*

**2006–2007** — Auditor of the Accounts Chamber of the Russian Federation

**2007–2014** — Head of the Railway Stations Directorate of the Russian Railways OJSC

**2015** — Adviser to the President of the Russian Railways OJSC

**2015–present** — Industrial Director for the Arms, Ammunition and Special Chemistry of the Rostec State Corporation





**Yuri Nikolaevich Koptev**

*THE CHAIRMAN OF THE SCIENTIFIC AND TECHNICAL COUNCIL OF THE ROSTEC STATE CORPORATION*

**1992–2004** — CEO of the Russian Space Agency; CEO of the Russian Aviation and Space Agency

**2004–2008** — Director of the Defence Industry Sector's Department of the Russian Federation's Ministry of Industry and Energy

**2008–2009** — Head of the group of advisers for the Rostec State Corporation

**2009–present** — The Chairman of the Scientific and Technical Council of the Rostec State Corporation



**Natalya Vladimirovna Borisova**

*CHIEF ACCOUNTANT OF THE ROSTEC STATE CORPORATION*

**2007–present** — Chief Accountant of the Rostec State Corporation



**Alla Sergeevna Laletina**

*DIRECTOR FOR LEGAL SUPPORT AND CORPORATE GOVERNANCE OF THE ROSTEC STATE CORPORATION*

**2007–2010** — Director of the Corporate Legal Department of SiburTyumenGaz JSC (SIBUR-Holding JSC)

**2009–2013** — Deputy CEO for Corporate and Legal Matters at Tobolsk-Polimer LLC (SIBUR-Holding JSC)

**2013–2015** — Head of the Legal Administration, Head of the Legal and Corporate Department of the Rostec State Corporation

**2015–present** — Director for Legal Support and Corporate Governance of the Rostec State Corporation



**Vladimir Zalmanovich Litvin**

*MANAGING DIRECTOR FOR DIRECTLY CONTROLLED ORGANISATIONS OF THE ROSTEC STATE CORPORATION*

**2006–2008** — Senior Vice-President for Commercial Activities of AVTOVAZ OJSC

**2008–2009** — Adviser to CEO of the Rostec State Corporation

**2009–2015** — Head of the Department for Corporate Procedures and Property Portfolio Department, the Asset Management and Corporate Procedures Department of the Corporation, the Planning and Industrial Policy Department of the Rostec State Corporation, Industrial Director of the Directly Controlled Organisations Complex

**2016–present** — Managing Director for Directly Controlled Organisations of the Rostec State Corporation



**Maksim Vladimirovich Vybornykh**

*STATE SECRETARY OF THE ROSTEC STATE CORPORATION*

**2002–2004** — Deputy Director of the Inspectorate of the Moscow Chamber of Control and Accounts

**2004–2006** — Head of the Economic Department of the Central Administrative District of Moscow

**2006–2014** — Head of the Presidential Experts Directorate of the Russian Federation

**2014–present** — Official Secretary of the Rostec State Corporation



**Viktor Nikolaevich Kiryanov**

*MANAGING DIRECTOR FOR INFRASTRUCTURE PROJECTS OF THE ROSTEC STATE CORPORATION*

**2003–2005** — Head of the Main Directorate for Road Traffic Safety of the Ministry of Internal Affairs of Russia

**2005–2011** — Chief Road Traffic Safety Inspector of the Ministry of Internal Affairs of Russia, authorised as Minister

**2011–2015** — Deputy Minister of Internal Affairs of the Russian Federation

**2016–present** — Managing Director for Infrastructure Projects of the Rostec State Corporation

## 2.4 Key events and transactions of 2017

### JANUARY



#### Rostec State Corporation ensured the supply of advanced communication systems to the army

The Rostec State Corporation ensured the supply of a large batch of equipment of the radio-link communication system R-430 to the Russian Armed Force. The equipment enables the protected creation of networks and communication links up to 1,500 km long. It is almost entirely immune to electronic warfare devices of the enemy.

#### Russian Helicopters JSC won an international tender

Russian Helicopters JSC entered into a contract with the government of Baluchistan, a Pakistani province, for the supply of Mi-171 civil helicopters.



### FEBRUARY



#### Alexander Nazarov was appointed as the Deputy CEO of the Rostec State Corporation

Alexander Nazarov, former managing director for non-core and distressed assets of the Corporation, was appointed the Deputy CEO of the Rostec State Corporation.

#### RT-Project Technologies JSC selected as the sole developer of the state procurement information system

The Government of the Russian Federation decided to select RT-Project Technologies JSC (a member of the Rostec State Corporation) as the sole contractor under state contracts with the Federal Treasury for the development and operation of the Unified Procurement Information System (UPS) in 2017-2018.

### MARCH



#### Rostec State Corporation provided greater detail about the consolidation of holding companies under UEC JSC and Ruselectronics JSC

The united company will become the leader in technologically advanced segments such as automatic control systems, communication, and electronic reconnaissance; it will also be a major player on the civil market for digitalization of production, transport and logistics, and information technology infrastructure.



#### A perinatal centre opened in Bryansk

The Corporation opened a perinatal centre in Bryansk under the Programme for Development of Perinatal Centres. The centre, which includes 130 beds, is equipped with modern medical equipment and is intended for the care for children with pathological conditions. The total cost of construction was 2.1 billion rubles.

#### Russian Helicopters supplied a batch of multirole Mi-171 helicopters to China

China General Aviation Service expects to use the helicopters primarily for environmental protection and wildfire suppression.





# Key events and transactions of 2017

## APRIL



### 75th anniversary of the Engineering Design Bureau JSC

The Rostec State Corporation held a celebration of the 75th anniversary of the Engineering Design Bureau JSC – a developer of Strela, Igla and Verba domestically- built man-portable air-defence systems, Khризantema anti-tank missile systems and Iskander tactical missile systems.

## MAY



### UEC JSC completed the second stage of flight tests for the PD-14 engine

The PD-14 fifth-generation aircraft engine is being designed as part of a broad cooperation among the enterprises of UEC JSC for the MS-21 airliner project using advanced technologies and materials, including composites. This is the first power unit for passenger airliners built entirely in Russia in recent decades.

### First Russian assembly and testing facility for gas turbine units for maritime programmes commissioned

The Rostec State Corporation announced the commissioning of the first Russian assembly and testing facility for gas turbine units (GTUs) for maritime programmes at the facilities of the Rybinsk company UEC-Saturn PJSC (a member of the United Engine Corporation JSC). During his visit to the plant the President of the Russian Federation, Vladimir Putin launched the tests of GTUs.



### Perinatal centres opened in Makhachkala and Nazran

The Corporation opened perinatal centres in Nazran (130 beds) and Makhachkala (150 beds) under the Programme for Development of Perinatal Centres. The total capacity of both clinics is more than 15,000 patients per year.



28 / 29

# Key events and transactions of 2017

JUNE



## Rostec State Corporation and Chinese BPEC agreed to establish a joint venture to localize LNG technologies

31

The Rostec State Corporation and Beijing Petrochemical Engineering Company (BPEC) have entered into a memorandum of cooperation. A joint venture will be formed at the facilities of the Rostec State Corporation as part of cooperation for the nationalisation of LNG technologies. The Corporation will hold a majority interest.

JULY



## Russian Helicopters JSC signed contracts with United Helicopters

During the Aviation and Space Salon MAKS-2017, Russian Helicopters JSC has entered into three contracts with United Helicopters International Group for the supply of 10 helicopters to China in 2017-2018.

AUGUST



## Rostec State Corporation and Vnesheconombank announced the establishment and launch of Konversia NPO LLC

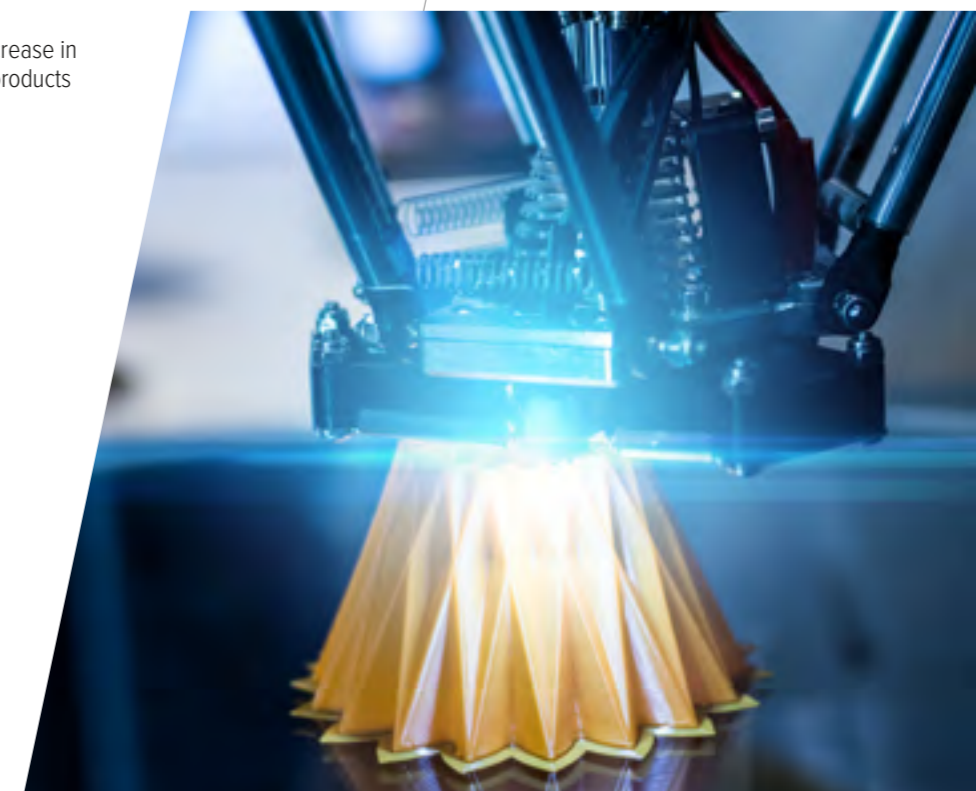
The primary task of Konversia NPO LLC is an increase in the output volumes of non-defence and dual-use products at the enterprises of the defence industry sector.

## Corporation commenced creation of an additive technologies centre

The Rostec State Corporation commenced creation of the Engineering Centre for Additive Technologies at the facilities of the All-Russian Institute of Light Alloys OJSC. The specialists of the Centre will coordinate scientific and research work, the selection and adaptation of solutions for the use of additive technologies, as well as the digitalization and control of geometric parameters of products.

## Rostec State Corporation and the Government of the Yaroslavl Region signed an agreement on the implementation of the pilot Smart City project

The Rostec State Corporation and the Government of the Yaroslavl Region have signed an agreement of intent to implement an eco-system Smart City project, which will be one of the first pilot projects of Konversia NPO LLC. The preliminary cost of the project implementation is about 3.5 billion rubles.





# Key events and transactions of 2017

## AUGUST



### *KRET JSC delivered new airborne defence systems to the army*

KRET JSC delivered to the Ministry of Defence of the Russian Federation new Vitebsk airborne defence systems to be installed on Mi-8 helicopters. The agreement signing ceremony was held at the Army 2016 Military and Technical Forum.

## SEPTEMBER



### *AVTOVAZ PJSC launched the commercial output of LADA Vesta SW and LADA Vesta SW Cross cars*

The models created a new niche in the Russian market and allowed LADA Vesta to become one of the most popular cars in the segment.

### *Rostec State Corporation and Marathon Group signed an agreement on the consolidation of pharmaceutical assets*

Sergey Chemezov, CEO of the Rostec State Corporation, and Alexander Vinokurov, President of the Marathon Group investment company, have entered into an agreement for the consolidation of pharmaceutical assets to create a federal-level producer and supplier of pharmaceutical products.

### *Corporation named the Competence Centre for the Digital Economy programme*

The Corporation was appointed the Competence Centre for the Digital Economy programme for "Shaping Up Research Competences and Technology Capacities" in five areas: neurotechnologies and artificial intelligence, distributed ledger systems, industrial internet, robotics and sensors and wireless communication technologies.



### *Kalashnikov Concern JSC opened a new design and technology centre*

Kalashnikov Concern JSC completed the construction and commissioned a new design and technology centre (DTC) with a total floor area of 20,000 sq. m. Advanced developments will be digitally designed there.

### *Rostec State Corporation launched an e-learning project*

The Corporation launched a pilot e-learning project in the Sverdlovsk Region: introduction of the Single E-Learning Environment (SELE). The project has been designed for 350 member classes, more than 700 teachers and more than 10,000 school students. It will become the largest e-learning project in Russia.

### *KAMAZ PJSC delivered second-generation KAMAZ-6282 electric busses to Mosgortrans for field tests*

The electric bus and the charging station have been designed jointly with the Drive Electro Moscow engineering company specially for the Government of Moscow.





# Key events and transactions of 2017

## OCTOBER



### Another stage of MS-21 aircraft tests completed

The MS-21-300 pilot aircraft completed a flight from the airfield of the Irkutsk Aviation Plant to the Zhukovsky Airport for further flight tests. The aircraft travelled 4,500 kilometres at an altitude of 10,000 non-stop in 6 hours. The avionics for the aircraft are supplied by KRET JSC. It is also expected that the PD-14 engines built by UEC JSC will be installed on the aircraft.

### Ruselectronics JSC launched a Digital IT Factory

Ruselectronics JSC launched a technology platform for the efficient development of software of various complexities. The platform, called the Digital IT Factory, includes a geographically-distributed stand with a ready-to-use system of software tools.

### Rostec State Corporation arranged deployment of an electronic vehicle registration certificate

Access to the electronic vehicle registration certificate (VRC) will be granted to employees of the State Road Safety Inspectorate, competent member organisations of the electronic registration certificates' system and owners of vehicles. Hard copies of vehicle registration certificates will be gradually withdrawn to avoid re-issuing lost VRCs.



### Rostec announced the launch of industrial production of equipment for making pharmaceutical products

The project operator is the Centre for Development of Advanced Technologies (CDAT) – a joint venture of the Rostec State Corporation, USM Holdings and Elvis-Plus LLC, owned by Alexander Galitsky. The respective technologies are being localised at production facilities of the Avtomatika Concern JSC, where eight types of equipment will be manufactured for the commercial output, aggregation and application of tests.



## NOVEMBER



### The Corporation's representatives included as members of the working group for the rehabilitation of the Tractor Plants Group

The working group also includes representatives of the Ministry of Industry and Trade of the Russian Federation, Vnesheconombank and executive authorities of the Russian federal subjects.

## DECEMBER



### Rostec State Corporation completed construction of three perinatal centres in Ulyanovsk, Tambov and Yakutsk

The total cost of construction of three medical institutions was more than 8.5 billion rubles. The centres, equipped with technologically advanced equipment, each have 130-150 beds. Additionally the Corporation's organisations have delivered to these centres special mobile intensive care ambulance units capable of transporting infants with an extremely low body weight (500 g and above).



### NCI LLC arranged information and communication services for the drawing procedure of the 2018 FIFA World Cup

The National Centre for Informatization LLC provided services to the organisers of the event, including internet access, mobile communications, access to ISDN and TETRA digital radio communications. The newly built infrastructure successfully withstood peak loads: during the drawing procedure, there were more than 40,000 phone calls made by the users of communications services.

### Ruselectronics JSC developed a neuro headset for people with nervous system disturbances

The headset is designed, among other uses, for patients who have suffered a stroke, amyotrophic lateral sclerosis, serious head and spinal injuries, or who are fully conscious but unable to communicate verbally or by signs.

3. **Rostec:**  
*Partner In The Future*  
*10 Years*  
*Of Sustainable*  
*Growth*

**141**

**BILLION rubles**

INVESTMENTS IN 2017





## 3.1 State Corporation Rostec: Partner in the future

Across its 10 years of history, the Rostec State Corporation has repeatedly proven itself to be a reliable partner for Russian and foreign companies. More importantly, it has become a reliable partner for the government both in terms of state defence order, and the development of Russian industry.

For many years, the Corporation's organisations have been supplying advanced equipment and vehicles for the Ministry of Defence of the Russian Federation and providing technical maintenance services. To a large extent, the Corporation has made it possible to increase the equipment level of armaments of the troops by four times since 2012. According to the Ministry of Defence of the Russian Federation, by 2021 the Russian army will be 70% equipped with modern armaments and vehicles. Moreover, subject to the use of resources of Novikombank Joint-Stock Commercial Bank JSC, the Rostec State Corporation finances the leading Russian industrial enterprises involved in the performance of the state defence orders (SDO) and ensures compliance with all the necessary confidentiality.

Over the decade, many projects have been implemented due to the participation of the Corporation and its holding companies. The Rostec State Corporation is proud of the outcome of such projects, which were fruitful not only for their participants, but also the entire economy of Russia.

The Corporation's activities allowed it to increase the value of its assets from 1 to more than 3 trillion rubles, ramp up the production output of non-defence products by almost four times in absolute terms and increase its revenue from 511 billion rubles in 2009 to almost 1.6 trillion rubles in 2017. Today, the products of the Corporation's organisations are supplied to 100 countries of the world, and the volume of military export of Rosoboronexport JSC has increased more than twofold over 10 years.

The Corporation slogan "Partner in the future" was approved in 2012, but in practice it had been in use before. As early as in 2008, the Rostec State Corporation became a partner of Skartel LLC and jointly launched the Yota brand. Today, this brand is used by a federal wireless communications provider. In 2015, REX Global, a Hong Kong holding company, acquired a 30% share in Yota, whose majority interest belongs to the Rostec State Corporation.

Joint projects of the Corporation and its partners are implemented in the following areas:

- Formation of joint ventures for the production of technologically advanced products;
- Investments in Russian industrial enterprises;
- Development of raw materials and infrastructure facilities;
- Development of knowledge-intensive technologies and know-how.

### Joint ventures with Russian and foreign partners

In 2016, Ramport Aero JSC, a joint venture (JV) of the Rostec State Corporation and Avia Solutions Group, opened the fourth airport of the Moscow air hub in Zhukovsky near Moscow. The new international airport was developed by Ramport Aero JSC to serve classic and low-budget passenger, cargo and charter airlines. Clients enjoy the entire range of customs and warehousing services at the modern A-class warehouse complex, including electronic declaration and information services. The airport has its own border inspection post.

The Rostec State Corporation started to develop Russian metallurgy jointly with the major global aircraft companies as early as in 2009. An agreement was signed between VSMPO-AVISMA Corporation PJSC and Boeing, an American company, for the creation of a joint venture in the Urals that processes blanks for the advanced developments of the American company: Boeing 787 Dreamliner, 737 Next Generation and 737 MAX aircraft. VSMPO-AVISMA Corporation PJSC is the global leader in production of titanium, and today it meets 40% of the Boeing's needs, 60% of the needs of Airbus and 100% of Embraer's needs for titanium.

While continuing the development of projects in partnership with the world's most technologically advanced companies of the civil sector, the Corporation has created a series of joint ventures involving foreign investors and continues fruitful cooperation in a number of areas. Close cooperation has been established with Pirelli, one of the largest global tyre manufacturers. The Rostec State Corporation and the Italian company have signed an agreement for the creation of a joint venture, Pirelli Tyre Russia. The production was launched at the Voronezh Tyre Plant where, a new line was

built with the most advanced equipment.

Voronezh-2, a workshop of the Voronezh Tyre Plant, is a full production cycle facility. An integrated production control system monitors the condition and status of the equipment in an online mode. Voronezh-2 is governed by the same high standards as the other 22 enterprises of Pirelli in other countries.

Daimler, a German truck manufacturing group, has long proven itself as a reliable partner of KAMAZ PJSC. Mitsubishi Fuso Canter, a SKD assembly plant for medium-duty trucks built by Daimler, commenced its operations in 2019 at the territory of the Master Industrial Park in Naberezhnye Chelny, and as early as in May 2011 the number 1,000 truck was rolled out of the plant's gate.

The second joint venture, Mercedes-Benz Trucks Vostok, formed by KAMAZ PJSC and Daimler AG, was also created on principles of parity in 2009. Its operations began in early 2010, and today it builds, sells and provides maintenance services for Mercedes-Benz trucks and special vehicles in Russia.

KAMAZ PJSC is striving for the maximum possible nationalisation of joint production in Russia. For example, the licensed output of Daimler cabins was launched in 2013 not only for its own needs, but also for the needs of Mercedes-Benz Trucks Vostok JV. Today, the cabins built by the German company are installed on most newly developed vehicles, such as the KAMAZ-5490 freight truck, KAMAZ-65206 haul truck, KAMAZ-65207 drop-side truck and more.

Regarding the passenger car-building industry, AVTOVAZ PJSC has achieved significant results through the Renault-Nissan alliance. The companies extended their model ranges: LADA Granta and Largus, LADA Kalina 2, LADA Vesta and LADA XRAY were all launched for sale. Today, AVTOVAZ PJSC is a unique enterprise, as the largest manufacturer of the Renault-Nissan Alliance in Russia and one of the largest car factories in the world. It is the only factory of the 46 alliance plants that builds cars of four brands at full production cycle facilities: LADA, Renault, Nissan and Datsun. The next step is the output of new models, an upgrade to facilities and an increase of production capacities.

In the engine-building and aircraft industries, the Rostec State Corporation succeeded in establishing agreements with global industry leaders. Russian Helicopters JSC, the largest manufacturer of helicopters in the world, cooperates with Augusta Westland (a subsidiary of Leonardo, an Italian company) in the non-defence sector. The HeliVert joint venture, located in the Tomilino settlement near Moscow, builds AW139 multipurpose helicopters.

SaM-146 engines, jointly designed by UEC JSC and Safran, are successfully operated onboard of SSJ 100 aircraft. The engines have demonstrated a high level of operational reliability: the readiness of the engines for aircraft take-off was 99.89%.

Additionally in 2012 the Rostec State Corporation and Safran created a joint venture for the production of navigation systems.

The work of the Rostec State Corporation in the area of military and technical cooperation is also noteworthy. For example, a deal for the acquisition by the Government of Peru of twenty-four Mi-171Sh helicopters for a total amount of 500 million USD was one of the largest deals in the history of military and technical cooperation of the two countries. Another important event in 2015 was the first



export contract via Rosoboronexport JSC for the export of Su-35 aircraft and the sale of the first 24 units to China.

In general, it should be noted that the projects implemented by the Corporation jointly with the foreign partners are characterised by their diversity. They include the establishment of joint ventures for the production of technologically advanced products to attract foreign investments to Russian industrial enterprises and to share knowledge-intensive technologies and know-how.

### Investments in Russian industrial enterprises

In 2016, Kalashnikov Concern JSC commissioned new workshops and buildings for the production of shooting weapons, special equipment and tools, as well as a logistics centre and an administrative building. The cost of construction and re-equipment of the production base was 2.3 billion rubles. The investments facilitated an increase in the flexibility and efficiency of the enterprise. The Corporation, as the controlling shareholder, supports the projects, which seek to increase the return on investments and production efficiency of enterprises as part of its development strategy. Concurrently, the management of Kalashnikov Concern JSC is pursuing innovative technologies and the launch of new types of products, as the "shooting weapons" sector only works on 50 projects. More than 3 billion rubles were invested in the modernisation and development of production facilities.

## Development of raw materials and infrastructure facilities

The Rostec State Corporation has successfully developed one more area of cooperation with partners in the area of raw materials and infrastructure projects. For example, a joint venture of the Corporation and IST Group, TriArch Mining LLC, in 2013 commenced mining develop at the Tomtorskoe field for prospecting and ore extraction of niobium, rare metals, scandium and associated components. In 2016, a joint venture of Polyus PJSC and RT-Business Development, SL Zoloto LLC, won the tender for the largest Russian gold deposit – Sukhoy Log.

In 2014, VO Technopromexport JSC entered into a contract with an Algerian national generating company for the construction of diesel power stations. The parties have entered into the agreement following an international open tender that was won by VO Technopromexport JSC by placing the most competitive bid among six bidders. As provided for by the contract, the company will render an entire package of engineering services, including design, equipment supplies, supervision of construction and installation, pre-commissioning, commissioning of the facilities, and will train the customer's staff.

## Development of knowledge-intensive technologies and know-how

Since 2013, the Corporation has been helping to implement one of the most important projects of the Russian Academy of Sciences in the modern history of Russia – the National Solar and Geophysical Centre. It will promote the development of an entire range of branches of fundamental sciences. The enterprises of Shvabe JSC possess all the necessary competences and a modern production base to participate in the project, whose total cost will exceed 17 billion rubles by 2020.

In 2015, the Rostec State Corporation successfully completed the development of information systems for the Power Supply Control Centre at the Olympic sites in Sochi in conjunction with Alstom Grid (France).

Additionally the Corporation was appointed the sole contractor under the project for the construction of the IT infrastructure for the FIFA World Cup to be hosted by Russia in 2018. The



project primarily implies the use of domestic technologies, and foreign technologies will only be applied whenever there are no Russian equivalents. The sporting event will be supported by data communication channels, video conference, landline and mobile, professional radio and satellite communications and cable television.

It is worth noting that some partner projects of the Rostec State Corporation have proven themselves very successful and enabled the Corporation to sell to an investor a significant share in its assets without any worries as regards to what happens their future. Examples of successful projects include VSMPO-AVISMA Corporation PJSC, Kalashnikov Concern JSC and AVTOVAZ PJSC.

Moreover, investment projects allow the Rostec State Corporation to significantly ramp up its industry-related presence on the market and produce new product items, while also creating new opportunities.

In analysing the previous decade in terms of results, one could certainly conclude that the partner relationships are advantageous both for the Corporation and its partners. This is exactly why the Corporation intends to continue implementing this policy and act as a reliable partner under various projects aimed at developing the national industry and the country as a whole.



## Rostec State Corporation: Key partnerships in 2007–2017

2008

**ROSTEKHNLOGII STATE CORPORATION  
AND SKARTEL LLC (YOTA BRAND)**

Ростехнологии



2009

**ROSTEKHNLOGII STATE CORPORATION,  
VSMPO-AVISMA CORPORATION OJSC AND BOEING**



2010

**ROSTEKHNLOGII STATE CORPORATION,  
KAMAZ OJSC AND DAIMLER**

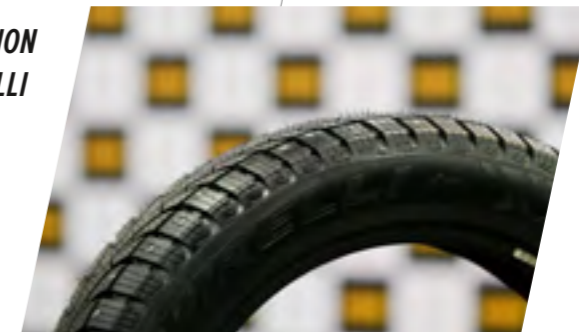


DAIMLER



**ROSTEKHNLOGII STATE CORPORATION  
AND PIRELLI**

Ростехнологии





2011

ROSTEKHNLOGII STATE CORPORATION,  
KAMAZ OJSC AND RENAULT-NISSAN



ROSTEKHNLOGII STATE CORPORATION,  
RUSSIAN HELICOPTERS AND FINMECCANICA



2012

ROSTEKHNLOGII STATE CORPORATION  
AND SAFRAN

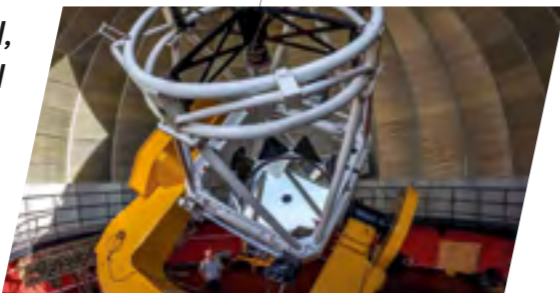


2013

ROSTEKHNLOGII STATE CORPORATION,  
RT-GLOBAL RESOURCES LLC AND EAST GROUP



ROSTEKHNLOGII STATE CORPORATION,  
SHVABE JSC AND THE RUSSIAN  
ACADEMY OF SCIENCES



2014

ROSTEKHNLOGII STATE CORPORATION,  
JSC RUSSIAN HELICOPTERS  
AND THE GOVERNMENT OF PERU



2015

ROSTEKHNLOGII STATE CORPORATION,  
ROSOBORONEXPORT JSC  
AND THE GOVERNMENT OF CHINA



2016

ROSTEKHNLOGII STATE CORPORATION  
AND POLYUS ZOLOTO PJSC



2017

ROSTEKHNLOGII STATE CORPORATION,  
THE GOVERNMENT OF THE RUSSIAN  
FEDERATION AND FIFA





## 3.2 Interview with the CEO of the State Corporation Rostec S.V. Chemezov

*THE SCALE EFFECT THAT WILL BE ACHIEVED THROUGH OUR STRATEGY IMPLEMENTATION WILL ENABLE THE CORPORATION TO STRENGTHEN ITS POSITION AMONG GLOBAL INDUSTRY LEADERS*

45  
44

– *The Rostec State Corporation celebrated its tenth anniversary in 2017. How would you assess in general the work done over these years?*

– Ten years is quite a young age for such a large corporation. One could say we have just reached the stage of “growing up”. During the first years we were under the spotlight, our capabilities were evaluated and the necessary conditions were created for our proper growth. Now, we have grown stronger and achieved significant results by performing the tasks given to us upon the establishment of the Corporation.

– *Could you describe the state of the assets transferred to the Corporation for management purposes upon its establishment?*

– Most of the assets handed over to the Corporation had serious problems: wear and tear of equipment, ruined production chains, insufficient capacity utilisation, conflicts and disagreements among directors. More than 30% of enterprises were in a pre-crisis state, and 6% were in a state of bankruptcy. 4% ended their activities, and 6% lost their property. Now, after years of hard work, many of these enterprises now generate a profit.

It is also extremely important that the Corporation has elaborated a unified strategy, formed a series of holding structures by types of activities and continuously launches new production platforms. All of this has allowed Russia to create entire clusters of technologically advanced production facilities.

I would like to emphasise that it is the professionalism of all employees of the Corporation’s enterprises that made it possible: workers, engineers and management. The downward trend in the Russian industry was broken solely due to the high-quality know-how, devotion and talent of specialists of the Rostec State Corporation.

– *How would you assess the Corporation’s successes in the last 10 years?*

– The total cost of the Corporation’s assets has grown by three times since their transfer and exceeded 3 trillion rubles. One should understand that the quality of our assets today is absolutely different than they were back in 2008. Ten years ago, 1 trillion rubles was merely the balance sheet value of the enterprises handed over to the Corporation, but in fact the actual costs did not correspond to the values shown in the documents.

Another example: more than 1 trillion rubles were invested in our enterprises over the last 10 years. In 2017, our revenue reached almost 1.6 trillion rubles (as compared to 1.27 trillion rubles in 2016). The consolidated net profit of the Corporation has also significantly grown: in 2016 it was 88 billion rubles, but at the end of 2017 it was as much as 121 billion rubles. The share of non-defence products has grown from 25.1% in 2016 to 29.1% in 2017. The revenue from the sale of non-defence products was 548 billion rubles at the end of 2017.

Today, there are more than half a million employees working at the enterprises of the Rostec State Corporation. The average monthly salary of our employees is higher than the average salary in the country – about 47 thousand rubles.

”

IN 2017, CONSOLIDATED REVENUE OF THE CORPORATION REACHED

1.59

TRILLION rubles

Sergey Viktorovich Chemezov —

CEO





And finally, tax payments made by our enterprises to the budget were 136 billion rubles in 2017.

I am satisfied with the results.

**– What are the objectives of the Corporation today?**

– Now we have a primary strategic objective defined by Russian President Vladimir Putin: strike a balance between civilian and military products by 2030. But our own goal as defined in the Corporation's Development Strategy is even more ambitious – achieve a 50% share of non-defence products in the total revenue by as early as 2025. What are civil products anyway? It is a free market where consumers vote with their money: they will either prefer our products or not. The quality of the products produced by the Corporation's enterprises must not be lower than the quality of foreign counterparts, if not even higher. Moreover, we must be the first in the world to create "smart" products to enable Russia to make a technological leap and become a global leader in a whole range of areas.

And we have the capabilities to attain these ambitious goals. First of all, I mean that kind of synergy that we must achieve in order to strengthen the effect of our enterprises' cooperation. It is this kind of synergy enabled us to consolidate formerly isolated enterprises and revive a struggling industry. The Rostec State

# 29.1%

SHARE OF NON-DEFENCE PRODUCTS  
IN ROSTEC REVENUE, 2017

Corporation has become an internationally recognisable brand whose strength is in the quality of its products. We are ready to bear responsibility for each single item of our products so as to earn the trust of our partners.

**– What stands behind the growth of the non-defence products' share in the Corporation's revenue?**

– The Rostec State Corporation is engaged in a very large number of civilian sectors. The Western sanctions made us look at our own development from an absolutely new perspective and

“  
The main tasks of the Corporation's development in the first stage were to preserve the enterprises handed over to the Corporation and to form a balanced structure of the Corporation's assets through the formation of holding companies and integrated structures

**– What is the role innovation in the Corporation's development today?**

– As of today, the need for innovation is obvious. The primary objective of our 2025 strategy is entry into the Russian and international markets of "smart" non-defence products. Such markets are developing twice as fast as the conventional ones where the Corporation is already present. The added value of products in such markets is more than 50% and is formed by intellectual investments in technologies. The most promising markets, as we see them, are medical equipment, biotechnologies, energy generating and energy saving equipment, telecommunications equipment, information technologies, electronics, new materials, robotics and control systems. The scale effect that will be achieved through our strategy implementation will enable the Corporation to strengthen its position among global industry leaders within the next 15-20 years.

Today, we already have integrated projects for digitalization of the Russian economy. Members of the Corporation, National Centre for Informatization LLC and Shvabe JSC, and our joint venture with Vnesheconombank (Konversia NPO LLC), are already involved in the implementation of a series of significant projects under that programme, including global infrastructure projects as Smart City, Smart Healthcare and E-Learning.

**– In your opinion, what is the role of innovation in the conventional industry?**

– Conventional sectors must not get behind in developments. Take, for example, gas turbine units. In Rybinsk, we created a national base for maritime gas turbine engineering. There we also work on domestically-built, high-capacity power generating equipment. For example, one of the projects, GTD-110M, the first Russian gas turbine engine with a power higher than 110 MW, is at its final stage. Until recently, such equipment was only imported to Russia.

It is no secret that today all large turbines in the world are built by Western companies. And our country's need for power stations is enormous. Obviously, against the background of sanctions, we need to get rid of that dependence as soon as possible. The Corporation is busy developing the most advanced engines and is carrying out research photonics and other areas. All this will be included in the technologies of the future.

Regarding military products, we also continuously offer innovative products with our proprietary software. Last year, at the IDEX-2017 exhibition of armaments, the Corporation's organisations demonstrated about 750 items. Many of them have no comparable counterparts in the world due to their unique solutions. We can be proud of our developments.

**– How did the Western sanctions affect the scope of export?**

– We see sanctions as a challenge. They affect our dealings with foreign partners. Some markets and opportunities turned out to be closed for us. But at the same time, the sanctions inspire us to look for new markets and to develop the science and new technologies.

served as a catalyst for the import substitution programme in such sectors as engine-building, aviation, avionics, electronics, electronic component base s and information technologies.

Today, the sanctions impose a ban on supplies to Russia of imported equipment for power generation. But what if tomorrow the ban will also apply to more critical and sensitive products or entire sectors – vaccines, medical equipment, IT products? As a response to those threats, we are developing the production of technologically advanced equipment for medicine. For example, innovations from our company Shvabe JSC are being applied for intensive care, oncology, cardiology, ophthalmology, orthopaedics, neonatology, diagnostics and laboratory tests. They are sought after not only in Russia, but also abroad. Shvabe's products are exported to 95 countries around the world.

Shvabe manufactures more than 60% of domestically produced equipment used in the perinatal centres being built by the Corporation in the Russian regions. By the way, medical equipment of the holding company has already replaced foreign equivalents in 700 medical service providers across the country (they are mainly devices for intensive care and therapy). In some sectors the share of Russian medical equipment is even higher. Most importantly, all such equipment is of high quality and on a par with the Western counterparts in terms of key technical features and sometimes even outperforms them.

At the end of 2017, the growth in revenue from the sale of non-defence products of Shvabe JSC was 51%.



# 13.4

**\$ billion**

VOLUME OF MILITARY PRODUCTS  
EXPORTED BY ROSOBORONEXPORT JSC

Essentially, sanctions are nothing but an effort to restrict our competitive advantages and push us out of the markets where we can win, in particular the arms market. But when the markets of the North America, Australia and the European Union were closed for us, we reoriented towards other markets and strengthened our positions in the South and Southeast Asia, the Middle East and Latin America. Russia managed to remain the world's second largest exporter of military products. As a result, our geography of export has only expanded. The numbers for Kalashnikov Concern JSC alone speak for themselves: following the imposition of US sanctions against it, its portfolio of orders has grown by 6.5 times – from 46 to 300 million USD.

*– Does the Corporation intend to further expand its sales markets or concentrate on the existing ones?*

– We consider all the existing challenges. Today, the arms market is shifting from pure supplies to integrated cooperation based on the transfer of technologies and joint development of new solutions.

Besides, previously there were only sales of military equipment, but today the demand has shifted towards a package of services: maintenance, upgrade, repair and disposal of time-expired arms. We have built repair facilities and service centres in many countries buying our arms, and we provide upgrading services and train combat and technical personnel.

*– You have already mentioned the Corporation's 2025 Development Strategy. How are the goals and tasks of that strategy being achieved and implemented today?*

– As of today, the main goals of the first stage of the Corporation's development have been attained. But this is not enough, and we need to move on. Today, the world is on the threshold of a new technological order, and we need to be on the cutting edge. As such, we decided to update the Corporation's Development Strategy. In 2015, we developed the 2025 Strategy that outlines an aggressive entry into new markets – the ones being shaped up today or the markets that will emerge in the nearest future. These are not confined to military markets. They also include neurotechnologies, robotics and unmanned systems.

We have set an ambitious goal – to be among the world's leaders in the markets for technologically advanced products. And this is not only about competitiveness; it is about conquering and retaining Russia's positions as a global technological leader.

According to our estimates, by that time the Rostec State Corporation should be one of the top-ten global corporations in terms of revenue. Though quite ambitious, these plans are very realistic: 10 years' experience says that we can successfully implement them.

*– What are the successes of the Corporation in attracting private investors?*

– Our goal is to use existing assets to attract private investors in our sectors of responsibility. From the very start we aimed at making the Corporation a factory of technologically advanced production facilities and assets that investors would be interested in. Initially, such assets were few in number – I have already noted the state that most of the enterprises were in. But when an asset reaches a certain level of development, it attracts the interest of investors, and we succeeded in that. Today, 75% of shares in AVTOVAZ PJSC (the Corporation has retained its blocking shareholding interest) have been sold, and the same is true for VSMPO-AVISMA Corporation PJSC. The share of private investors in Kalashnikov Concern JSC recently increased to 75% minus one share. The block shareholding interest (25% plus one share) remains with the Corporation. I believe the next one will be High Precision Systems JSC. Some assets could be sold in their entirety, but only in the civilian sector.

*We have set an ambitious goal – to be among the world's leaders in the markets for technologically advanced products*

“



*– How interested are private investors in partnership with the Corporation?*

– Cooperation with investors and public-private partnerships are one of the primary objectives of the Corporation's strategy. We believe that this is a real mechanism for the development of industrial assets where the synergy effect is achieved through public capabilities and private capital. Many businessmen today withdraw funds from Western banks while looking for investment targets. And profit-generating industrial enterprises are a good investment. We are more interested in the prospects of partnership rather than in a deal or the revenue from the sale of a shareholding interest: facilities, mastering new production techniques and output of new types of products, as well as the company's revenue and profitability growth.

As part of the Corporation's development strategy, we have approved an ambitious task of increasing our revenue by 17% each year. In 2017, we came close to this target. I would like to note that even against the background of sanctions we have shown good results.

*– There are many town-forming enterprises included in the Corporation's structure. Is this factor taken into account when planning the development efforts for such enterprises?*

– The Corporation's structure includes more than 20 town-forming enterprises, and we pay much attention to social responsibility. Let us look at just one example: in 2017, we spent almost 1 billion rubles to redeem the debts of the Savelovsky Machine-Building Plant to preserve the social stability in the town of Kimry where this enterprise is town-forming.

*– What efforts are being made by the Corporation in terms of environmental protection?*

– Ecology is one of the most important areas of development of the Corporation. We have scheduled a whole series of environment-oriented projects. One of them is a project approved by the Government of the Russian Federation for the construction of waste recycling plants to swiftly solve the problem of waste dumps and waste disposal in the country. Today, about 60 million tons of solid municipal waste is generated in Russia every year, but only 7–15% of waste is recycled. We understand that the construction of waste recycling plants is not the cure, but the waste problem has reached disastrous proportions and requires an immediate solution.

This is why waste recycling plants is an urgent measure. Our main objective is green focus. We can solve the problem of waste collection only if we join efforts and recycle waste responsibly.



*– What efforts are being made by the Corporation to attract young employees?*

– The Corporation is devoting a lot of attention to the youth. We try and spark interest in young people towards engineering sciences and attract young specialists to the machine-building sector. For example, we regularly host the Zvezda multi-discipline engineering competition and the Engineers of the Future forum jointly with the Russian Engineering Union (with the support from the Ministry of Education and the Federal Agency for Youth Affairs). Competition winners receive advantages when applying for the leading technical higher education institutions of the country, and the most promising participants of the forum are included in the process for solving practical engineering and management tasks in the key areas of the Russian engineering sector's strategy.

We see the effect – youth have become more and more interested in the engineering sphere. In 2017, more than 130 applications were submitted for the Vladimir Revunov Award, as compared to only 27 in 2016.

Each year, the average age of workers at the enterprises of the Corporation becomes younger. The staffing issue is one of the key solutions to proper growth.

*– In your opinion, can the Corporation succeed in remaining flexible in its tactical decisions while meeting the requirements of the time and market?*

– The Corporation is not a giant enterprise requiring a long-lasting reformation of the structure to meet changing requirements. Each of the Corporation's enterprises performs its own tasks. Therefore, from a tactical perspective we can hardly speak of any lack of flexibility.

We have implemented a series of changes in the staffing policy so as to make the governance as efficient as possible. And since 2016 we have been introducing certain changes in the Corporation's governance system. In particular, we introduced a differentiated approach: all holding companies are divided into strategic, investment and, to a lesser extent, operational models of corporate governance.

Heads of parent organisations of the holding companies are vested with more and more authority. But their responsibility for operational and business results of the holding companies' organisations also rises. For example, we recently significantly expanded the scope of competence of holding companies' directors in terms of the transactions they are authorised to carry out.



Besides, the Corporation continuously adjusts the very structure of assets: we regularly review the management structures of holding companies, create joint ventures and optimise a whole series of existing production facilities.

A point to keep in mind is that the process of transferring shareholding interests to the Corporation in the key production assets (property contribution by the Russian Federation) is still under way. All these enterprises must be swiftly integrated into the structure and business processes of the Corporation.

*– What is your vision of the Corporation in 5-10 years?*

– It is way more optimistic than it was 10 years ago. The CEO has various tasks depending on the different life cycles of the company. Ten years ago, our task was to make the industry work again. Now we're facing another, more ambitious challenge – increasing the quality of life through development of "smart" products. I am confident that in 5-10 years the Rostec State Corporation will be among the leading industrial corporations of the world.

*We try to spark interest in young people towards engineering sciences and attract young specialists to the machine-building sector*

“





## 3.3 State Corporation Rostec: Evolution of development

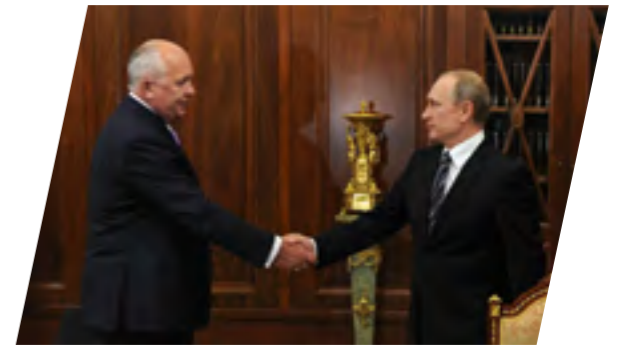
### 3.3.1 Key achievements across a decade of the Rostec State Corporation's development

# 2007

#### *The decision to establish the Corporation was based*

on the aspiration to support the defence industry sector of the country during hard times and increase the competitiveness of domestic industrial enterprises.

10  
years of sustainable  
development



- *At the end of 2007,*  
the country's leadership decided to establish the Rostekhnologii State Corporation, which received a significant portion of the country's industrial assets.
- *On 23 November 2007,*  
the President of the Russian Federation V.V. Putin signed the Federal Law No. 270-FZ dated 23 November 2007 "On the Rostekhnologii State Corporation".

 Ростехнологии





# 2008

- **Adoption of regulations**

governing the work of the Corporation, including: three federal laws of the Russian Federation, four decrees of the Russian President and three orders of the Russian Government.

- **Pursuant to the Decree of the President of the Russian Federation**

No. 1052 dated 10 July 2008, a decision was made to transfer to the Rostekhnologii State Corporation more than 400 enterprises. The assets transferred to the Corporation included 148 enterprises in a state of pre-crisis and crisis, 28 in a state of bankruptcy, 17 enterprise not carrying out any business activities and 27 enterprise that had partially lost their property or had a significant risk of such loss. The production chains were ruined at the enterprises, their fixed assets were worn and torn and there was an urgent need for more efficient management.

**148**  
enterprises

WERE IN A STATE OF CRISIS OR PRE-CRISIS

10  
years of sustainable  
development



- **AVTOVAZ OJSC**

and French car-building group Renault signed an agreement for strategic partnership with support from the Rostekhnologii State Corporation. The agreement launched a full-scale process of restructuring the Russian car-building company.



- **Ростехнологии**

- **The Supervisory Board of the Rostekhnologii State Corporation**

developed and approved a programme for the reformation of the Corporation's organisations in the defence industry sector (DIS). 340 organisation were to be reformed, including 330 DIS organisations and 10 from other industry sectors.



- **Russian Helicopters JSC**

and Augusta Westland (Italy) signed a framework agreement for a joint venture to assemble AW139 helicopters at a new plant in Tomilino, Moscow Region.



10 years of sustainable development

• *The Rostekhnologii State Corporation and the Government of the Republic of Tatarstan*

signed an agreement for cooperation. The parties declared their intention to follow a unified policy aimed at creating highly efficient integrated structures. The Government of the Republic of Tatarstan agreed to contribute shareholding interests owned by the Republic in five enterprises to the Corporation.

• *The Rostekhnologii State Corporation and Thales international industrial group*

signed a memorandum of partnership and cooperation in the sphere of electronic systems for the defence and aerospace industries.



• *The Rostekhnologii State Corporation and United Aircraft Corporation OJSC*

entered into an agreement for cooperation. The scope of orders placed by UAC OJSC with the Corporation's enterprise for a period up to 2012 was about 30 billion rubles.

19

HOLDING COMPANIES  
IN THE DEFENCE INDUSTRY  
SECTOR

5

HOLDING COMPANIES  
IN THE NON-DEFENCE  
SECTOR

48

FOREIGN REPRESENTATIVE  
OFFICES OF THE  
CORPORATION

2009

511  
BILLION rubles

REVENUE OF THE CORPORATION FOR THE YEAR

Daimler engaged as the strategic partner of KAMAZ OJSC

Two joint ventures were formed — FUSO KAMAZ Trucks Rus and Mercedes-Benz Trucks Vostok.



DAIMLER





• *The Rostekhnologii State Corporation and Alcatel-Lucent (France)*

formed a joint venture, Alcatel-Lucent RT, for the development, production and marketing of technologically advanced IP-based telecommunications equipment in Russia and countries of the CIS.

**633**  
billion rubles

REVENUE OF THE CORPORATION FOR THE YEAR

• *UEC-Saturn OJSC*

obtained EASA certificates and the type certificate of the Interstate Aviation Committee Aviation Register for the SaM-146 engine for the Sukhoi Superjet 100 aircraft. Commercial supplies of SaM-146 were launched.

• *The Rostekhnologii State Corporation and General Electric International JSC*

entered into a cooperation agreement under which a joint venture was built in Russia for the production of technologically advanced medical equipment.

• *The Rostekhnologii State Corporation completed construction*

and commissioning of medical centres in Krasnoyarsk, Tyumen, Khabarovsk and Chelyabinsk. The first patients were admitted to the centres.

# 2010

*An agreement was signed between Technologiya Obninsk Research and Production Enterprise named after A.G. Romashin JSC and Krunichev State Research and Production Space Centre*

for the manufacturing and supply of 14 sets of nose fairing shells for the Proton-M launch vehicle that ultimately occupied about 90% of the Russian market for these products (large space booster category).





# 2011

- *The Supervisory Board of the Rostekhnologii State Corporation*

approved the Corporation's 2020 Development Strategy.



- *Share of the Corporation*

in the authorised capital of AVTOVAZ OJSC increased to 28.98%.



- *A shareholding interest*

of 25%+1 share was purchased in VSMPO-AVISMA Corporation OJSC.

- *An agreement was signed during the International Aviation and Space Salon*

between Rosoboronexport, ITT CJSC and Safran for the formation of a joint Russian-French venture for the production of laser inertial navigation systems.

**817**  
billion rubles

REVENUE OF THE CORPORATION FOR THE YEAR

*Efforts were made to implement the investment project*

aimed at forming a joint tyre-manufacturing venture with Pirelli. Kirov Tyre Plant OJSC was acquired by the joint venture.





10  
years of sustainable  
development



• *The Supervisory Board of the Rostekhnologii State Corporation*

decided to optimise the Corporation's structure and reduce the number of holding companies to 13. In particular, assets of Aviapriborostroenie JSC were transferred to Radio-Electronic Technologies Concern JSC, assets of Engineering Design Bureau JSC – to High Precision Systems NPO JSC, assets of Sirius JSC and Orion JSC – to Ruselectronics JSC.

• *The Corporation entered into a deal*

with the Renault-Nissan international alliance under which control over the operational activities of AVTOVAZ OJSC was handed over to a joint venture of the Corporation and Renault-Nissan, Alliance Rostec AUTO B.M.

• *A joint venture*

of the Rostekhnologii State Corporation and Safran was formed for the production of navigation systems.

• *The Corporation completed the construction*

of federal centres for medical technologies as part of the Top-Priority National Project "Health".

• *Certain works were ensured*

in the electric power industry with support from the Corporation and its organisations. For example, the hydro-power unit of the Naghlu hydro power plant was commissioned into test operation in Afghanistan, and construction of the power generating unit at Ivanovskie PGU-325 and the new power generating unit of Urengoy GRES power plant were completed.

2012

*On 21 December 2012  
it was announced*

that the Rostekhnologii State Corporation would be rebranded. A new corporate identity of the Corporation, its logo and the slogan "Partner in the future" were launched, along with an updated website.



931  
billion rubles

REVENUE OF THE CORPORATION FOR THE YEAR





# 2013

10  
years of sustainable  
development

- The Rostekhnologii State Corporation and Pirelli (Italy) opened a production line at Voronezh Tyre Plant (VTP). In March, the new line began producing rubber compounds for Pirelli that were used to create premium-class tyres.
- A joint venture of RT-Global Resources LLC, a member of the Rostec State Corporation, and EAST Group was formed and began work on the production and treatment of rare metals at the Tomtor field (Yakutsk) and in Krasnoufimsk.
- The production facility of Jadara Equipment & Defence Systems was opened for the assembly and testing of rocket-propelled grenade (RPG-32) launchers in Jordan. The king of the Hashemite Kingdom of Jordan Abdullah II bin Al-Hussein and the CEO of the Corporation Sergey Chemezov attended the opening ceremony.

- The medical centre of the Far Eastern Federal University on Russky Island began its operations. The centre was built with support from the Corporation.
- Kalashnikov Concern JSC, formed on the basis of Izhmash NPO JSC, was officially founded. The Rostekhnologii State Corporation proposed to sell 49% of Kalashnikov Concern JSC to private investors. The majority interest, 51%, remained with the Corporation.
- The Rostekhnologii State Corporation and the Ministry of Energy of the Russian Federation signed an agreement with the Government of Uganda under which the Corporation would promote investment in oil and gas prospecting and extraction, the development of oil treatment facilities and renewable energy in the African country.
- Rosoboronexport JSC delivered the Vikramaditya aircraft carrier to the Indian Navy. The Russian side upgraded the ship and modernised the flight deck and the springboard for takeoff for the MiG-29K.

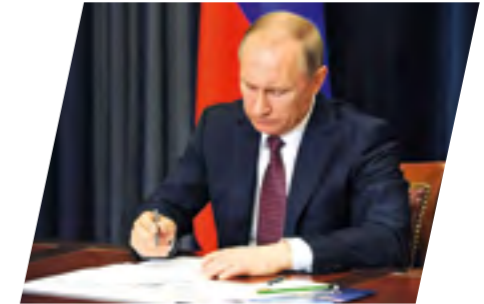
1,000  
billion rubles  
REVENUE OF THE CORPORATION  
FOR THE YEAR

- VSMPO-AVISMA Corporation OJSC and Boeing signed an agreement for the construction of a new plant to process blanks for the advanced passenger airliners of the American company. Consequently Ural Boeing Manufacturing (UBM) – the joint Russian-American venture – doubled its productivity.
- The Rostekhnologii State Corporation completed renovations of the Zelenaya Roshcha resort in Sochi that was included in the Olympic construction programme. The Corporation spent 800 million rubles for this purpose.
- Pursuant to the Decree of the Government of the Russian Federation No. 2424-p dated 19 December 2013, the Corporation was chosen alongside Voskhod Research Institute Federal State-Funded Institution and Rostelecom OJSC as the contractor under the state orders for the development and introduction of the Unified State Health Information System (EGISZ).





10  
years of sustainable  
development



- *The President of the Russian Federation signed*

Federal Law No. 356-FZ, amending Federal Law No. 270-FZ and renaming the Corporation "Rostec State Corporation".

- *Pursuant to the Decree of the President of the Russian Federation*

No. 20 dated 14 January 2014, Vega Radion Engineering Concern OJSC, Sozvezdie Concern OJSC, Avtomatika Concern JSC and Control Systems JSC were included in the Corporation's structure.

- *The first stage of the corporate governance reform*

was completed: new boards of directors including independent directors were formed, and updated articles of association of the Corporation's holding companies were developed and approved.

- *The Corporation began its work*

on the perinatal centre development programme, approved by the Decree of the Government of the Russian Federation No. 2302-h, dated 9 December 2013.

**965**  
billion rubles

CONSOLIDATED REVENUE OF THE CORPORATION FOR THE YEAR

# 2014

*Kalashnikov Concern OJSC completed the upgrade*

of its production facilities. During the first year the Concern invested 1.5 billion rubles in the upgrade of the exiting fleet of machines and processes performed an overhaul of its equipment and developed information technologies.



# 2015

- The Supervisory Board of the Rostec State Corporation approved the updated 2025 Development Strategy. The main objective is changing the Russian economic model by increasing the share of technologically advanced non-defence products and non-resource exports.

- The value of the Corporation's brand was assessed for the first time. According to Assessa, its value was 31.2 billion rubles, and the brand is among the top 15 of the most expensive brands in Russia.

- The Rostec State Corporation presented the new brand of Technodinamika. The rebranding project was implemented in cooperation with the international creative team of designers of INTO Branding, which has experience implementing branding projects for global companies, including Sony Ericsson and Qatar Airways.

- The Rostec State Corporation and WorldSkills Russia (official operator of the international non-profit movement WorldSkills International) entered into a three-year agreement on joint work for the training of specialists for technologically advanced industry sectors.

- National Centre for Informatisation LLC became one of the first residents of the new Russian city, Innopolis. Sergey Chemezov, CEO of the Rostec State Corporation, was present at the technology and innovation centre's foundation ceremony. The centre will concentrate the key competences of the Corporation in the IT sphere.

- The Government of the Russian Federation issued an order appointing National Immunobiological Company JSC as the sole supplier of vaccines for the National Preventive Vaccine Calendar.

- The Rostec State Corporation arranged the largest press tour ever for foreign industrial journalists at the Aviation and Space Salon MAKS.

- AVTOVAZ PJSC commenced commercial output of new models: the LADA Vesta and LADA XRAY.

- Sergey Chemezov, CEO of the Rostec State Corporation, announced an export contract for the supply of 24 Su-35 aircraft to China by Rosoboronexport JSC.

- RT-Global Resources LLC won a tender for construction of the North-South gas pipeline in Pakistan stretching over one thousand kilometres long.

- Sergey Chemezov, CEO of the Rostec State Corporation, presented to the President of the Russian Federation Vladimir Putin a report on the preliminary results of the Corporation's work in 2015 and demonstrated the newest developments of the Corporation.

- An agreement was signed between Russia and India for cooperation in the helicopter engineering by which the Rostec State Corporation committed to the production of at least 200 Ka-226T helicopters in India.

- The Corporation arranged the first International Fireworks Festival in Russia. The participants of the pyro-musical play included firework artists from Europe, Asia, Latin America and Russia. The event was attended by 200,000 people daily, and the total number of visitors exceeded 3 million people.

1,140 billion rubles

CONSOLIDATED REVENUE OF THE CORPORATION FOR THE YEAR



# 2016

- The Corporation initiated additional capitalisation of Novikombank Joint-Stock Commercial Bank JSC, the base bank of Russian industrial work. As a result, the Corporation and its organisations increased their share in Novikombank to 100%. The total volume of additional capitalisation was 45 billion rubles.

- Digital Industry of Industrial Russia, the first Russian IT conference and the largest in Eastern Europe, was held in Innopolis with support from the Rostec State Corporation.

- At the St. Petersburg International Economic Forum (SPIEF), the Rostec State Corporation signed various agreements totalling more than 2 billion USD, along with over 15 agreements with large companies and government authorities, including VTB Bank PJSC, Rosneft Oil and Gas Company PJSC, the Government of the Zabaykalsky Krai and WorldSkills.

- The Government of the Russian Federation appointed the Corporation the sole contractor for the development of IT infrastructure for the 2018 FIFA World Cup and the 2017 FIFA Confederations Cup.

- The Rostec State Corporation took 7th position in the Top 500 largest companies of Russia based on consolidated revenue. The first 100 companies of the RBC-500 Rating also included the following organisations of the Corporation: Russian Helicopters JSC, AVTOVAZ PJSC, KRET JSC and High Precision Systems NPO JSC.



- The Corporation presented Vladimir Putin with a proposal for the creation of an industrial and creative cluster based on the famous factory Oktava PJSC, which is being implemented by the Corporation together with the Government of the Tula Region and private investor M.E. Shelkov.

- The Corporation acted as a strategic partner for Bio-techmed, the largest Russian biotechnologies conference. During the event the Corporation presented the newest developments of its holdings: the MIM-340 laser microscope, non-invasive brain-computer interface and unrivalled bionic prostheses.

- The President of the Russian Federation Vladimir Putin signed a Decree on the transfer to the Corporation 100% of shares of Uralvagonzavod Research and Production Corporation OJSC. The complicated financial and economic status of the enterprise and the threat of non-fulfilment of state defence orders prompted the changes.

- The Zhukovsky International Airport, built by the Rostec State Corporation jointly with Avia Solutions Group (Lithuania), was officially opened.

# 1,266

billion rubles

CONSOLIDATED REVENUE OF THE CORPORATION FOR THE YEAR



72 | 73

# 2017

*A new organisation of the Corporation, RITE Company, was unveiled during the Digital Industry of Industrial Russia 2017 International Forum*

The company will promote the technologically advanced Russian IT products in foreign markets.

**1,589**  
billion rubles

CONSOLIDATED REVENUE OF THE CORPORATION FOR THE YEAR

- The Rostec State Corporation officially commenced consolidation of Russian Electronics JSC and United Instrument Manufacturing Corporation JSC, with the goal of establishing a nationwide electronics company. Overall, the new company will include almost 170 enterprises and scientific organisations, with a total revenue of about 180 billion rubles per year.

- Extending the Corporation's updated 2025 Development Strategy into the Development Strategies and Action Plans of the holding companies and directly controlled organisations was mostly completed. The Corporation's management board ratified and the Boards of Directors of the holding companies approved the Strategy for Development of Primary Industrial Holding Companies. A detailed study confirmed that the goals set by the Corporation's Strategy were feasible. The growth rates of revenue, EBITDA and the production of non-defence produces as per the development strategies of the holding companies, correspond to the goals outlined in the Corporation's strategic plan.

- The first Russian assembly and testing facility for gas turbine units (GTUs) for sea vessels located began operating at the Rybinsk company UEC-Saturn PJSC. During his visit to the plant, the President of the Russian Federation Vladimir Putin launched the testing of GTUs.

- The Rostec State Corporation and the Bank for the Development and Foreign Economic Affairs (Vnesheconombank) State Corporation entered into an agreement to create a joint venture, Konversia NPO LLC, to ensure the transfer of technologies and products of the defence industry's enterprises to non-defence sectors and promote technologically advanced non-defence products in the domestic market.

- The Rostec State Corporation and the Government of the Yaroslavl Region signed an agreement of intent to implement the Smart City project. The preliminary cost of project implementation is about 3.5 billion rubles.

- The Rostec State Corporation, represented by Elektronnyy Pasport JSC, was named by order of the Ministry of Industry and Trade of the Russian Federation the contractor for introducing electronic vehicle registration certificates.



# Evolution of assets

2008

2017

A DECISION WAS MADE TO TRANSFER

THE ROSTEC STATE CORPORATION'S STRUCTURE INCLUDES

>400 organisations

TO THE ROSTEKHNLOGII STATE CORPORATION, INCLUDING:

17

NOT CARRYING OUT ANY BUSINESS ACTIVITIES

148

IN A PRE-CRISIS OR CRISIS STATE

27

WITH THEIR PROPERTY PARTIALLY LOST

28

IN A STATE OF BANKRUPTCY

64 BILLION rubles

LOSS IN 2009

>700 organisations

INCLUDING:

18

HOLDING COMPANIES

70

DIRECTLY CONTROLLED ORGANISATIONS

10

INFRASTRUCTURE SUBSIDIARIES

21

TOWN-FORMING ENTERPRISES

121 BILLION rubles

NET PROFIT IN 2017

## The Rostec State Corporation

- Is number 7 in the Top 500 largest companies of Russia based on revenue
- Number 2 in the world by arms exports
- Assets of the Corporation are located in 60 Russian regions
- Products of the Corporation are purchased by more than 100 countries
- Headcount of the Corporation exceeds 511,000 employees

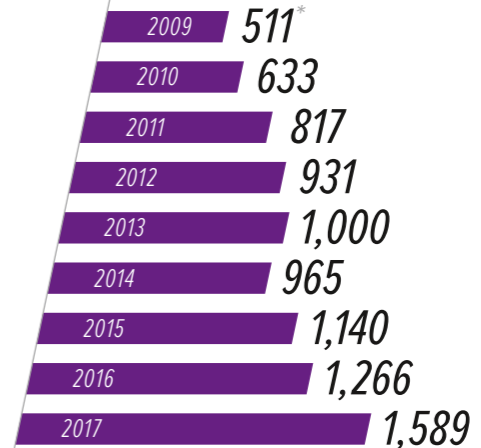
# Evolution of growth

OVER TEN YEARS

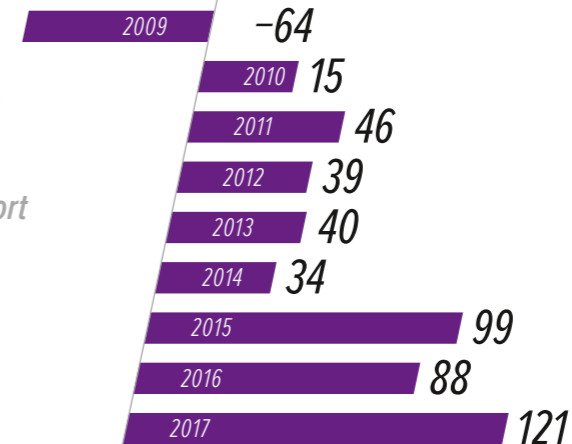
- The value of the Corporation's assets grew from 1 trillion rubles to more than 3 trillion rubles
- Production of non-defence products grew by more than 4 times in absolute terms
- Revenue grew from 511 billion rubles (in 2009) to 1.6 trillion rubles in 2017
- Scope of military export grew from 6 billion to 13.4 billion USD

## KEY FINANCIAL FIGURES

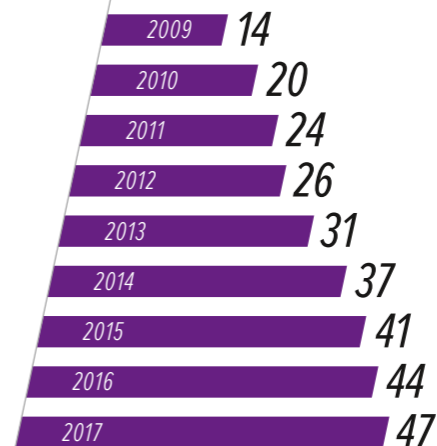
REVENUE (BILLION RUBLES)



NET PROFIT (BILLION RUBLES)



MEDIAN SALARY (THOUSAND RUBLES PER MONTH)



\* According to the annual statements of the Rostec State Corporation

## Range of Industries 2017

- Electronics
- Aircraft engineering
- Mechanical engineering
- Production of arms and military equipment
- Production of ammunition and special chemistry
- Engine building
- Automotive industry
- Metallurgy
- Information technologies
- Telecommunications
- Robotics
- Optics
- Chemistry
- Composite and other structural materials
- Medical equipment
- Pharmaceuticals
- Instrument engineering
- Machine-tool industry and production of industrial equipment
- Finances
- Mineral resources
- Security
- Construction



### 3.3.2 Interviews with directors of the State Corporation Rostec

## Interview with the CEO First Deputy of the State Corporation Rostec V.V. Artyakov

*WE STRIVE TO CREATE A MARKET NICHE  
IN THE NEW TECHNOLOGICAL WORLD ORDER*

– How would you describe the state of the main assets of the Corporation at its establishment and today?

– I joined the Corporation only in 2012, but the state of the first organisations transferred to it in 2008 is no secret. The assets transferred to the Corporation back then included 148 enterprises in a state of pre-crisis and crisis, 28 in a state of bankruptcy, 17 enterprises not carrying out any business activities, and 27 that had partially lost their property or had a significant risk of such loss. The production chains were ruined at the enterprises, their fixed assets were worn and torn, and there was an urgent need for efficient management and engineering staff.

The Rostec State Corporation was established to solve these very problems. One could argue for a long time whether the decision was right, but in my opinion the facts speak for themselves. Today, the Rostec State Corporation includes more than 700 organisations. Some of them are consolidated into 18 holding companies, 70 more are directly controlled organisations, and 10 are infrastructure subsidiaries. The value of the Corporation's assets has grown over 10 years from 1 to more than 3 trillion rubles; revenue – from 511 billion rubles in 2009 to almost 1.6 trillion rubles in 2017. The scope of military

exports ten years ago was about 6 billion rubles, and in 2017 it reached 13.4 billion USD. Now we are firmly in second place by export of arms in the world.

– The Government still sets the tasks for the Corporation's rehabilitation of distressed assets and sometimes even whole industrial clusters. What is the scope of this work?

– Ten years ago, when the Rostec State Corporation was established, along with the operating enterprises we also received a large number of organisations in an unstable financial condition. We succeeded in creating a management structure for holding companies, and today all holding companies show positive results. Now, the Corporation's structure includes about 94 distressed enterprises. On 2017, six enterprises were included in the register of distressed enterprises, and four were removed from it. This is a continuous process: some get into the list, some are removed. In average, about ten enterprises leave the distressed zone each year, but they are replaced by others, and we start to rehabilitate them. I can say without any doubt that there is progress in every sphere of activity.

“  
Today, the Rostec State Corporation includes more than 700 organisations. Some of them are consolidated into 18 holding companies and 70 more are directly controlled organisations

*Vladimir Vladimirovich Artyakov —  
CEO FIRST DEPUTY*





This also includes such critical spheres as the improvement of processes, equipment upgrades, as well as the adoption of investment and management decisions.

**– What distressed assets require special attention today?**

– A I am sure everyone knows, we have a new asset, Uralvagonzavod Research and Production Corporation OJSC (UVZ). This super-powerful industrial complex is in a very bad financial situation. UVZ was transferred to us with the expectation that we would achieve positive results, i.e. stable operation of the enterprise by regrouping financial, organisational and other resources.

Today, per the decision of the Russian Government, the Corporation is rehabilitating the Tractor Plants Group (TPG), whose condition is not very good. We are carrying out the operational management of TPG and we have obtained control over the bankruptcy proceedings and formed structures that will be “dumped”, in a good sense, with recovered assets that will be used for business development purposes and to solve strategic problems. The primary creditor is the Bank for Development and Foreign Economic Affairs (Vnesheconombank) State Corporation, with which we closely cooperate. I think that, by joining forces, we will achieve a positive result at TPG in the next two or three years. As a result, more likely than not, a question will arise whether to transfer the recovered enterprises of TPG to the Corporation and integrate them into a holding company.

**– How is the rehabilitation of distressed assets funded?**

– The Corporation’s structure has a Financial Rehabilitation Fund whose funds are utilised to help distressed assets, and there are also funds of the governmental support programmes, though due to objective reasons the government is not yet able to increase the scope of such support.

Since 2008, 38 of our organisations have received budgetary subsidies worth more than 10 billion rubles to prevent their bankruptcy. Today, the register of distressed assets includes 18 enterprises that previously were subsidised. At the same time, the systemic work aimed at supporting the distressed enterprises, apart from subsidies, loans and suretyships, may be carried out only by concurrent utilisation of all production capacities. And such utilisation should be systemically planned while taking into account the principles of production facilities’ cooperation as part of State Defence Orders (SDO) distribution, military and technical cooperation (MTC) and Federal Targeted Programmes (FTP).

**– Is the Financial Rehabilitation Fund of the Rostec State Corporation replenished out of the Corporation’s own funds? What is the size of it?**

– The Fund is replenished out of the Corporation’s income. The decision regarding the volume of funds to be allocated to the Fund is made after distribution of profit at the end of each year. Besides, each holding company of the Corporation also has similar funds replenished, inter alia, by the sale of non-core assets.

As for the Corporation, given the current situation, less than 1 billion rubles are allocated for that purpose. We try hard to support our enterprises that implement the financial rehabilitation programme within the said limits. This is a complex process:

the holding company and the enterprises must convince the special committee that they actually need the funds. A special governmental commission headed by D.O. Rogozin has been formed to prevent bankruptcy of strategic enterprises.

As practice shows, during the last two years, 80-85% of enterprises that received the funds managed to leave the distressed zone.

**– Recently, the Rostec State Corporation established the Quality Management Competence Centre. Could you please describe that entity and its tasks?**

– The Competence Centre will ensure a unified approach to the management of our products’ quality. We expect that this will allow us to decrease the costs of eliminating defects by 25% by 2025, and decrease by 50% the number of non-performed contracts due to improper quality reasons. Deployment of the unified system for quality management is a strategic initiative of the Corporation.

A new entity was formed in response to the need for a unified approach to the implementation of the overall quality management model, irrespective of the industry sector where a company belongs. This would allow us to form a single picture of the products’ quality in all organisations of the Rostec State Corporation and increase the efficiency of the raw materials’ management systems.

An efficient system for quality management primarily increases the competitiveness of non-defence, which that must reach 50% of the total revenue of the Corporation by 2025. As expected, we will introduce the requirements of international standards to the quality management system to all enterprises of the Corporation as early as 2020.

**– The Rostec State Corporation’s 2025 Development Strategy is focused on strategic partnership, including development and production of technologically advanced products. What steps are being taken in that direction?**

– We are making significant efforts in that direction. One of the latest steps was signing an agreement for the allocation of a partnership centre at the Skolkovo Innovation Centre. The centre will implement investment projects, development and production of technologically advanced products. The projects will be initiated by the holding companies of the Rostec State Corporation, residents of the Skolkovo Innovation Centre and international partners of the Corporation. The projects will be financed from the funds of both the Corporation and private investors.

The Corporation’s Strategy is not simply based on attracting technological partners, but on the initiation of joint projects to ensure the growth of revenue from the sale of non-defence products. The Partnership Centre will be utilised to implement joint civilian development projects in the sphere of additive technologies, synthetic biology, materials processing, electronics and other top-priority spheres. The Centre will become a single window to all our enterprises and will promote the implementation of Russian ideas and practices of the Industry 4.0 under existing production conditions. The volume of funds allocated by the Corporation to finance the Partnership Centre will be 300 million rubles for the period up to 2020. The projects will be implemented under scientific and technical



supervision and with the use of the unique competences of the Corporation’s enterprises. The expert potential of the Skolkovo Fund will probably also be used.

**– What is your vision of the Corporation in 10 years?**

– This is a simple, yet difficult question. The simple answer is that our future in general outlined in the Rostec State Corporation’s 2025 Development Strategy. It describes in detail how we strive to establish a niche market in the new technological world order being formed today. In the long run, the Corporation will become a core of technological, i.e. the economic and social, development of the country. By 2035, the Corporation expects to become a global player in technologically advanced markets, like Samsung, Siemens and GE, and become the global leader in at least two or three segments. The key drivers of the Corporation’s growth will be: operational efficiency, transfer of technology between the military and civilian spheres, entering fast-growing markets and the efficient marketing and promotion of technologies, commodities and services.

The complex part of the question is that we live in a world that changes incredibly fast. Electricity covered the planet in just 30 years, the telephone changed the communications in two decades, the internet – in 15 years, and tablet PCs conquered the world in 4 years. We are at the edge of another technological revolution that will drastically change all aspects of our life.

The Corporation reacts to the technological challenges of the era. Thus, today our efforts are focused on the development and creation of “smart” systems that will lead to an improvement in production planning, resource management and analysis of efficient processes. We clearly understand that the winner will offers not just technologies, but integrated products with an added value, such as the Smart City, the Industrial Internet, telehealth, e-learning, etc. These projects integrate hundreds of technological solutions and products produced by the Corporation’s enterprises. Without any doubt, the Corporation will remain a reliable partner of the government in state defence orders.



# Interview with the Deputy CEO of the State Corporation Rostec N.A. Volobuyev

*A RIGID AND EFFICIENT SYSTEM ENSURING ECONOMIC SECURITY  
AND THE CONFIDENTIALITY OF NATIONAL SECURITY INFORMATION  
HAS EXPANDED WITHIN THE CORPORATION*

81  
80 — *Which of the the key changes that have taken place in the Corporation over the decade do you deem most important?*

— I think that the most important thing is not the changes as such, but the fact that we chose the right path aimed at improving corporate governance and the timely attraction of material investments for the implementation of infrastructure projects in our core spheres of activity. These changes led to positive growth of the financial performance indicators and an upgrade of production facilities at the organisations of the Rostec State Corporation.

The transformation and some restructuring of the Corporation's headquarters promoted the formation of an optimal model of asset management which, in turn, enabled us to attain higher operational performance, profitability and revenue.

— *What is your main personal achievement over the years of work at the Corporation?*

— The Corporation once had to choose between two procurement system development options: either develop the centralised system or empower the Corporation's organisations to independently determine the options for further development of that sphere.

I and the supervised structural units in charge for procurement and security prepared an offer for the creation of a centralised system in the Corporation that would be commonly used by all organisations of the Corporation. As a result, the Unified Procurement Provisions of the Rostec State Corporation were approved in 2015.

Several years after, during which we gradually disseminated the standards of the Unified Procurement Provisions among the Rostec State Corporation's organisations, I can surely state that our decision was absolutely right. The procurement system used by the Corporation's organisations became one of the most efficient mechanisms for corporate governance and significantly promoted the growth of the Corporation's financial performance indicators.

As of today, more than 550 organisations employed in various production sectors from military products output to pharmaceuticals, from financial services to production of tractor equipment, have agreed to abide by the Unified Procurement Provisions.

Over two years the procurement procedures allowed us to save more than 20 billion, rubles which is comparable to the yearly budgets of such federal subjects of the Russian Federation as the Kostroma Region and the Republic of Ingushetia.

— *What security challenges does the Corporation face today?*

— With the global situation changing, foreign economic activity is becoming more complex for the Corporation and its organisations.

Activities of some foreign organisations, including special agencies, are aimed at pushing the Rostec State Corporation and its organisations out of the global market of technologically advanced products, including military products.

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*Across a decade of development, the Corporation has created a chain of command and centralised the information security resources, allowing us to subjectively assess new threats*



*Nikolay Anatolyevich Volobuyev —  
DEPUTY CEO*



The security challenges for the Corporation and its organisations also include the unlawful activities of criminal syndicates and figures, legal entities and individuals involved in industrial espionage and fraud, terrorist attacks and human-caused emergencies in areas where the Corporation's facilities are located.

I cannot ignore the aggravation of international competition for information technologies and resources and the aspiration of some countries to dominate and impair the interests of other countries in the global media landscape. There is also a threat of computer attacks on information resources.

Today, the Corporation is carrying out its activities in most of the directions affecting the state of information security in Russia and covered by the Information Security Doctrine. One of the key lines of the Corporation's activities in the IT sphere is ensuring information security in automated systems and the prevention of cyber-attacks.

**– What efforts are being made at the Rostec State Corporation to improve information security?**

– Across a decade of development, the Corporation has created a chain of command and centralised information security resources, allowing it to subjectively assess new threats. We also built our mechanisms for the timely identification, forecasting, localisation and response to any threats.

Besides, we also developed a statutory and methodological

framework containing documents of all levels – from concepts and strategies determining a unified perspective regarding the principles for building the integrated information security system to regulations and instructions defining the procedure for implementation of requirements and rules introduced by the regulators in this sphere. The systematic control of compliance with the regulations allows us to efficiently control this system and apply preventive measures for its improvement with regard to the risk of new threats.

The Corporation rigidly regulates the choice of information protection means, servers and external equipment and software for its own information systems while focusing on Russian developers and producers. Utilisation of certified protection means and Russian software reduces the risk of the unlawful use of information resources.

The Corporation's own technologically advanced IT infrastructure, which features a high security level, allowed us to automate a series of business processes to ensure economic security and anti-corruption practices.

**– Could you please describe the work being done to prevent corruption at the Rostec State Corporation?**

– The primary organisational and coordination functions regarding the anti-corruption activities are implemented by a special unit formed in March 2014 – the anti-corruption unit that is part of

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*The Corporation rigidly regulates the choice of information protection means, servers and external equipment and software for its own information systems while focusing on Russian developers and producers*

the Safety Department, which handles everything except for issues related to monitoring, identification and settlement of conflicts of interest. Today, this function is carried out by the Compliance Department. The Compliance Department also ensures compliance with anti-corruption laws and statutes.

The Corporation has a centralised internal audit function. Its key tasks include assessing the efficiency of the internal control systems, risk management and corporate governance, as well as supporting the anti-theft, anti-fraud and anti-corruption "hot line".

The Corporation's anti-corruption preventive measures that deserve special attention include the creation and maintenance of the anti-theft, anti-fraud and anti-corruption hot line, as well as anti-corruption outreach initiatives in the form of information letters disseminated from a special email address and the continuous update of the Corporation's website.

The Corporation's Commission for Procurement Complaints became an important anti-corruption tool. Over a short period of time this institute has turned into an effective mechanism for resolving procurement disputes, reducing corruption risks and ensuring the efficient settlement of conflicts that inevitably occur in procurement.

More than 100 enquiries regarding possible procurement violations were made to the Commission in 2017 which, without any doubt, confirms that its work is efficient.

**– How does the Corporation interact with governmental bodies for anti-corruption purposes?**

– A series of efforts made jointly with the Federal Security Service, the Ministry of Internal Affairs and the Prosecutor General's Office of the Russian Federation allowed us to prevent a number of crimes against the Corporation and its organisations. For example, 13 criminal cases were initiated on the basis of the Corporation's materials sent to law enforcement agencies. In cooperation with

the security departments of the Corporation's organisations, certain assets were returned and financial damage was refunded in total amount of 560 million rubles, and the damage prevented amounted to more than 4 billion rubles.

Overall, the vertically integrated security system of the Corporation is accountable for about 3.5 billion rubles of refunded damage and 5.2 billion rubles of prevented damage.

**– What efforts are made by the Corporation to ensure economic security?**

– Today, economic security is the top-priority task required to ensure steady functioning of the Rostec State Corporation's organisations. Today, we can state with assurance that a rigid and efficient system ensuring economic security and confidentiality of the national security information has been elaborated within the Corporation. Clear understanding and implementation of the tasks within the Corporation are positively assessed by the state security-authorised capital.

Over ten years of work, most violations committed by the holding companies of the Corporation were identified and eliminated using the resources of our own units included in the headquarters of the Corporation, including the Security Department, with further delivery of the materials to law enforcement agencies.

**– What is your vision of the Corporation in ten years?**

– I believe that in the future we will continue to develop and remain the leaders in our industry. The Rostec State Corporation is a powerful and competitive company, and in ten years it will be comparable to the world's giants of industry by its performance, while preserving the right level of social welfare and security for its employees.





# Interview with the Deputy CEO of the State Corporation Rostec D.Y. Lelikov

*WE NEED TO ESTABLISH COOPERATION ON ALL LEVELS OF THE CORPORATION'S INTERACTION WITH RUSSIAN AND INTERNATIONAL VENTURE ECOSYSTEMS*

– One could say that over the period of its existence the Rostec State Corporation has evolved from a crisis manager to a strategic partner and large market player. What transactions would you identify as the most important in the previous decade?

– Over a comparatively short period of time the Corporation has come a long way indeed. Today, the quality of our assets is absolutely different. More than 1 trillion rubles were invested in our enterprises over the Corporation's period of operation. The largest transactions were deals to increase the Corporation's share in KAMAZ PJSC and AVTOVAZ PJSC to 49.9% and 28.9%, respectively. To a large extent, these deals saved not only the enterprises themselves, but the entire automotive industry of the country. Equally important was the acquisition by the Corporation of a shareholding interest in VSMPO-AVISMA Corporation OJSC and involvement in rare metals extraction projects. Largely, these deals were aimed at supporting and developing entire industry sectors. And I cannot ignore the acquisition by the Corporation of 20% shares in Novikombank Joint-Stock Commercial Bank JSC and the subsequent increase of the Corporation's interest to 100%. Today, it is the primary bank of Russian industry.

– What is the investment policy of the Rostec State Corporation today?

– The Corporation is a unique industrial platform capable of meeting the global challenges that Russia faces today.

This includes implementing investment projects jointly with our Russian and foreign partners, attracting of private investors and creating a favourable environment for the promotion of technologically advanced domestic products in foreign markets. Venture investments are becoming a new and important line of the Corporation's investment activities.

– From your perspective, why did the President of the Russian Federation call for the creation of venture funds by state corporations? And what will be the primary difference between the Rostec State Corporation's venture fund and any other venture funds?

– The number of technologically advanced projects developed via the so-called start-up mechanism has grown significantly. Whenever a certain maturity level is reached, they face the question of selling their shares in projects to investors. It is a shame when the ideas born in our country are implemented abroad, and more often than not that we have to buy something that was invented by us. I think that this is the exact reason for the instruction of the Russian President regarding the creation by the state corporations and partially government-owned companies of tools to promote introduction of innovative ideas to industrial production here, in Russia.

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*The Corporation is a unique industrial platform capable of meeting the global challenges that Russia faces today*

**Dmitry Yurievich Lelikov —**  
DEPUTY CEO





The Rostec State Corporation includes a large number of major subsidiary holding companies producing technologically advanced products.

These enterprises possess the competences and deep know-how in the high-tech sphere, which allows us to select promising ideas and create an innovative ecosystem, enabling us to support the industrial application of advanced technologies literally from the moment of seed investments. This is the very advantage of the Rostec State Corporation over other companies.

**– As expected, the size of the fund will be 500 million to 1 billion rubles. Why this amount?**

– The venture fund will be formed out of the funds of the Rostec State Corporation. Subsequently it will be replenished by increasing the authorised capital. We would not like to freeze a large amount of money of the fund's accounts. At the current stage, these funds are sufficient to make initial investments in 5-10 projects, thus allowing us to form the starting portfolio to be used in practising the mechanisms for interaction of these start-ups with the Corporation's enterprises. If the results are positive, the Rostec State Corporation will gradually increase the volume of money kept in the fund.

**– In what projects is the State Corporation Rostec ready to invest?**

– One of the key criteria for inclusion in the Rostec State Corporation's venture funds portfolio is the complementarity or projects with the Corporation's work. Priority will be given to projects in the spheres of industrial technology, artificial intelligence, new materials and other related fields that could be used both in the military and civilian industries. But investments in internet companies and projects in the field of financial technologies are not expected.

**– What is the percentage of successful projects that the Rostec State Corporation expects?**

– According to the statistics of venture investments, in average there are two or three commercially successful projects out of ten, which indicates the high risk of venture investments, especially at the early stages of such projects' life cycle (the concept stage and/or R&D).

In order to minimise the investment risk, the Corporation, on the one hand, is focused on more "mature" venture projects where the R&D risk is significantly lower: there is an understanding of the technology, and with a certain degree of certainty we can

assess its scalability, including with regard to the production capacities of the Corporation's enterprises, and on the other hand, on diversification of its portfolio by industries.

Besides, we need to take into account that, in terms of a corporate fund, we will measure success not only in the direct financial profit that could be generated by the sale of a company on the market or the dividends received. Equally important is the financial benefit that arises out of an increase in the production efficiency of the Corporation's enterprises, mastering innovative products and new competences and, finally, from entering into new and growing markets where the presence is critically important for the corporate strategy.

**– When will the fund start to accept applications?**

– In March 2018, the Rostec State Corporation's venture fund was registered as a legal entity, and today it is ready to officially accept and consider applications. The fund's team has commenced operations a little bit earlier and has already formed an initial pool of projects for review.

In the event that a promising company is found among the initial pool, then the initial transactions will take place no less than 6-9 months since the venture fund's commencement of operations with due regard to all the necessary legal procedures and approvals.

**– In your opinion, what are the prospects of the fund? What shape may it take in the future?**

– Generally, the Fund must become one of the permanent tools to ensure that the Corporation and its enterprises have a technologically competitive advantage through cooperation with external sources of innovation. In order to do so we need to establish cooperation on all levels of the Corporation's interaction with Russian and international venture ecosystems.

In the course of the Fund's development, the following tools will be included in the arsenal of its team: organisational models and proven management decisions for the efficient integration of start-ups into the processes and products chains of the Corporation; typical financial models considering all aspects of the integration process based on the results of the work with the starting portfolio that minimise the risks of investment loss; local technological know-how for the key fields of the Fund's investments; a developed ecosystem and external partners, such as accelerators and incubators, public institutions for development, expert organisations, etc. Thus, the Fund will turn into a unique centre of competences of the Corporation.

As such, the Fund will exist as an efficient and continually developing investment structure. In the long run we may form partnerships with private funds as part of an investment partnership.

**– Obviously, one fund cannot encompass all promising directions of the Rostec State Corporation's development. What about any promising projects not covered by the Fund's scope of competence?**

– The Fund for Innovative and Investment Development (FIID) has already been established within the Rostec State Corporation and has commenced operations. The fund is intended to support internal investments for the Corporation's projects. As a rule, the funds of FIID will be allocated to subsidiaries of the

Corporation to implement projects for the development and deployment of new technologies, as well as for the production of new, technologically advanced products. At the same time, these projects are not distinguished by their venture nature.

Besides, a significant number of projects are financed by the Corporation's holding companies directly out of their own funds and based on the investment programmes approved by the boards of directors. So, the Corporation's enterprises are also potential investors to promising external projects.

**– What are the current investment priorities of the Rostec State Corporation, without regard to the investments aimed at supporting the production processes of the holding companies and organisations of the Corporation?**

– The Rostec State Corporation invests funds into projects that allow us to achieve the goals set by the Corporation's 2025 Development Strategy. The top priorities of the Rostec State Corporation's investments are projects connected with the upgrade of existing products and technologies, development of a new line of products, mastering new technologies and import phase-outs.

Another priority is investing in new civilian projects aimed at increasing the production capacity utilisation of the defence industry's enterprises and generating more revenue by export and domestic sales.

It should be noted that the Rostec State Corporation has formed and consolidated into the Corporation's unified investment programme a pool of investment projects of each holding company of the Corporation. The projects are given detailed investment schemes for the period from 2018 to 2020.

**– With what other financial tools does the Rostec State Corporation expect to achieve planned performance indicators with regard to investments?**

Such tools include partnerships with technologically advanced companies for the purpose of establishing joint ventures or selling to them of shares in subsidiary holding companies of the Corporation for further development. Another efficient investment tool is the strategic partnership with large commercial banks and investment funds, such as the Russian Direct Investment Fund.

As part of this work the Rostec State Corporation pays attention to both the economic and technical results of joint efforts.





# Interview with the Chief Accountant of the State Corporation Rostec N.V. Borisova

*THE GROWTH OF NET ASSETS IS PRIMARILY PROVIDED  
BY OPERATIONAL EFFICIENCY IMPROVEMENT, COST REDUCTION  
AND ENTRY INTO NEW MARKETS*

– In your opinion, what are the most important achievements of the Corporation in the past decade?

– In considering ten years' of experience, I would first of all like to emphasise the updated Corporation's 2025 Development Strategy, whose main task is changing the Russian economic model by increasing the share of technologically advanced non-defence products and non-resource exports. Developing the Strategy would have been impossible without the successful reformation of federal state unitary enterprises to joint-stock companies and the formation of holding companies on their basis in the defence and civilian industry sectors.

Implementing the Strategy also is also ensured by the work of representative offices (and representatives) of the Corporation in 52 states for the promotion of domestic products in foreign markets, including against the background of international sanctions.

Important achievements include attracting private investors to increase the capitalisation and profitability of organisations and an increase in the volume of sales and export supplies.

The Corporation implemented a series of unique projects: in particular, nine federal medical centres for technologically advanced medical care have been built and commissioned; 11 regional perinatal centres have begun operations under the Healthcare Development programme, and four more are at the commissioning stage today; the Smart City project implementation has been commenced; and the E-Healthcare projects is underway.

Another important achievement is the creation of reserve and targeted funds of the Rostec State Corporation for the purposes of targeted financing of the Corporation's organisations involved in the development, production and export of technologically advanced industrial products for civilian and military use.

– How did the value of the Corporation's net assets change over the years of its establishment and development? To what can their value's high growth rate be attributed?

– The value of the net assets of the Corporation as a separate legal entity has reached 1.266 trillion rubles over ten years, and the assets by the Corporation's organisations have grown by more than 3 times. The high growth rate can be attributed to an increase in operational performance, reduction of costs, entry to new markets, attraction of new private investors and the engagement and retention of highly efficient management.

– What aspects of the balance sheet and the profit and loss statement were most significant in recent years?

– One of the most significant items of the Rostec State Corporation's balance sheet is Financial Investments, which is entirely determined by the Corporation's objectives.

The said item of the balance sheet is mostly formed by the shares in the organisations that used to be in federal ownership and were later transferred to the Rostec State Corporation as a property contribution by the Russian Federation. The transferred assets included organisations in a state of pre-crisis, crisis and bankruptcy, as

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*Compared to 2009, today the value of financial investments has grown by more than 6 times, due in part to preventive measures aimed at the financial rehabilitation and support of the Corporation's organisations*

*Natalia Vladimirovna Borisova —  
CHIEF ACCOUNTANT*





# 44.2

## BILLION rubles

INCOME FROM SHAREHOLDING  
IN ORGANISATIONS IN 2017

well as organisations that have ceased operations with huge debts.

Compared to 2009, today the value of financial investments has grown by more than 6 times, due in part to preventive measures aimed at the financial rehabilitation and support of the Corporation's organisations.

In this regard, the income from shareholding in the organisation has reached 44.2 billion rubles in 2017, which is reflected in the profit and loss statement of the Rostec State

Corporation. The improved performance of the Corporation's organisations, despite the complex macro-economic and political situation, led to the growth of income.

*– How did the process for preparation of accounting and tax statements of the Corporation evolve in the last ten years?*

– Considering the specifics of the Rostec State Corporation's activities, many aspects of the business life was not defined by the legislation of the Russian Federation governing the

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*In ten years, the Corporation will be a global flagship of Russian industry, an absolute Russian leader and reliable partner capable of competing against the largest industrial holding companies of the world*

managerial statements and the competitiveness of organisations included in the Rostec State Corporation's group; and it ensures investment attractiveness and evaluates the efficiency of the investments' control systems.

*– What is your main personal achievement during your years at the Corporation?*

– First of all, I would point to the organisation of the process for preparing accurate statements of the Corporation for purposes of timely and full accounting of all aspects of the Corporation's business; the adoption of all possible measures aimed at eliminating ambiguities, inaccuracies and conflicts with the statutes on taxes and charges and accounting; recruiting employees with the necessary professional skills and competences; creating an end-to-end and multi-level control of transactions to be reflected in the accounting statements; ensuring the interchangeability and rotation of the department's employees; ensuring the growth of efficiency despite staff reductions; building an efficient system for the control of targeted use of funds; and the prevention of risks of property loss.

The exceptionally positive auditor reports on the accounting statements over the entire period of the Corporation's operation, as well as the lack of any notes and penalties with regard to on-site and office audits by tax authorities, the Social Insurance Fund, the Pension Fund and the Federal Treasury of the Russian Federation affirms the measures we have taken.

Another important achievement I would like to emphasise is the launch, implementation and automation of the process for preparing consolidated financial statement of the Corporation as per IFRS using a unified methodology and information system.

Considering that the Corporation's composition is unique and the scope of consolidation of unprecedented, this project has no equivalent anywhere in the world.

*– What is your vision of the Corporation in ten years?*

In ten years, the Corporation will be a global flagship of Russian industry, an absolute Russian leader and reliable partner capable of competing against the largest industrial holding companies of the world.

accounting and tax bookkeeping processes. In this regard the Corporation carried out certain measures aimed at eliminating any ambiguities regarding the process of reflecting the business operations on a legislative level.

Following these measures, certain changes were made to the Tax Code of the Russian Federation in terms of taxation of incomes as property contribution of the Russian Federation to the Corporation's assets, as well as the procedure for determining the tax value of such property.

We also received specific clarifications from the Ministry of Finance of the Russian Federation regarding accounting of transactions carried out by the Corporation and developed accounting policies for purposes of accounting and tax bookkeeping at the Corporation for specific activities.

Moreover, the Rostec State Corporation has introduced a document workflow system to concurrently reflect all aspects of the business in the accounting procedures and statements in full. All accounting processes have been automated to the maximum extent possible.

*– What affected the Corporation's decision to shift to the international financial reporting standards (IFRS)?*

– The Corporation commenced its use of consolidated financial statements in 2013. The decision was based on the fact that IFRS presents a more realistic picture for purposes of analysing the Corporation's activities as a whole and by separate holding companies; it increases the quality and transparency of the





# Interview with the industrial director of the electronic cluster of the State Corporation Rostec S.A. Kulikov

*THE CORPORATION HAS ENTERED A NEW LEVEL OF DEVELOPMENT*

– What key stages of the structural transformation of the Corporation in the previous 10 years would you like to emphasise?

– The very establishment of the Rostec State Corporation, whose missions and objectives are defined by the Federal Law, and whose director is appointed by the President of the Russian Federation, has become, in my opinion, another landmark in the lives of the more than 400 enterprises transferred to us, along with the development, if not survival, Russian industry as a whole. In the mid-2000s it became obvious that the development and export of technologically advanced Russian products needed to be controlled by a single centre of the governmental origin practising modern business approaches. No one in Russia has ever done anything like this before. It should also be recalled that a significant number of assets transferred from the government to the Corporation were in an unsatisfactory, or even dire, state. Therefore, the first stage was dedicated to the evaluation of the transferred assets' prospects of development, along with the formation of an efficient system for their control in the vertically integrated structures. Essentially, such anti-crisis management was a struggle for survival for more than half of the assets.

By the end of the first five years, the Corporation already planned to complete a large budget investment tied to the programme for the re-equipment of the armed forces, and the governmental support started to transform into more market-oriented shapes. This predetermined the need to create conditions to attract private capital and build efficient partnerships, including international ones.

That stage is still under way, but today we can already see the positive effect of transactions aimed at attracting private and foreign investors: they include the partnership of VSMPO-AVISMA CORPORATION PJSC with Boeing

that has turned VSMPO-AVISMA CORPORATION PJSC into the largest world's largest manufacturer of titanium products with a sustainable development trajectory; noteworthy international alliances of KAMAZ PJSC with Daimler and AVTOVAZ PJSC with Renault-Nissan; the first nationwide infrastructure LTE operator; and the attraction of private capital to Kalashnikov Concern JSC, which has changed the entity beyond recognition. These were the pilot projects that have proven that the Corporation's future lies primarily in partnerships with market leaders, technology investors and the management motivated by shareholding interests.

In 2014, the Corporation detached a separate investment holding company, RT-Business Development LLC, with a total value of controlled assets over 40 billion rubles. In particular, it included the shareholding interests in Aeroflot PJSC, VSMPO-AVISMA CORPORATION JSC, Megafon PJSC, mining assets and institutes. Our presence in those sectors and the market nature of partnerships required that we make quick decisions, which explains why such a vertical was built. Under these conditions the professional team of RT-Business Development LLC managed to successfully arrange the sale of shares in Mongolian mining companies (Erdenet and Mongolrostsvetmet) despite problematic copper market conditions, form a steady shareholding structure for the sale of the Sukhoy Log project, sell to a Chinese fund the development and production of Yota Devices and implement other successful projects.

Across its two years of work, RT-Business Development LLC brought to the Corporation more than 50 billion rubles of income, including dividend income from financial investments. Today, RT-Business Development LLC manages 15 large projects and provides investment consulting services to the Corporation.

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**GROWTH OF  
REVENUE BY  
17%  
PER YEAR**

*is the Corporation's  
goal as per its  
Development  
Strategy*

**Sergey Alexandrovich Kulikov —  
INDUSTRIAL DIRECTOR OF THE ELECTRONIC CLUSTER**





One of the important success factors at this stage was the efficient combination of governmental and the business approaches in the Corporation's work, and that allowed us to create the conditions for development and marketing of new products, solutions and services.

All these prominent projects, as well as the ones that are less visible, i.e. the meticulous and routine work of hundreds of managers aimed at funding the federal state unitary enterprises, financial rehabilitation of assets, development of the corporate culture and the control system, have proven that the decision made ten years ago to establish the Corporation was right. But we needed to forge ahead as soon as possible, so in 2015 we commenced a new stage by updating the Corporation's Development Strategy and stepped onto a hard path of organic and inorganic growth. Now we are at the very beginning of that path – the Corporation has to change as the country and the world changes, by searching for new growth opportunities and new management and partnership forms.

*– You were among the initiators and developers of the new strategy of the Corporation. What was the main reason for updating the strategy?*

– The period of the Corporation's initial establishment and rehabilitation of assets has been completed, and the assets are starting to turn into businesses. It is time to attain steadiness by diversifying to new markets, solutions and products. Right

before our eyes the market leaders are dividing the global (and Russian as well) map of high technologies, and the competition inevitably grows, with strategic partnerships becoming more popular and necessary. Everything speaks in favour of setting more ambitious, even aggressive goals. And again, this is a struggle for survival, though on a different level.

In articulating the strategy, we analysed each of our current and promising lines of business, identified the segments of the future, compared the growth rates against the background of the national and global markets and translated the delta into the basic state of assets and competences. This is how the shareholding expectations occurred. They serve as a basis for the formation and annual update of business plans, a tool for managing of such expectations.

Against the background of these goals the business started to suffer from a lack of professional and motivated management capable of and ready to invest their efforts and time in achieving the goals.

We raised management's compensation to match the market level based on the urgency of the tasks and the scope of responsibility, and of course we tied it to business goals. The strategy also indirectly affects the Corporation's attractiveness in the labour market, as the monetary incentive is obviously not enough for a self-respecting leader. Equally important is the feeling of participating in something significant – increasing the

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*Today we are already seeing the positive effect of transactions aimed at attracting private and foreign investors*

defensive potential and development of the country's economy; developing new commercial markets and new products and solutions for the critical infrastructure and international cooperation for the best interests of peacekeeping and sovereignty of partner states. Human assets are a critical tool for achieving the strategy's goals, so we pay significant attention to developing our staff by creating or maintaining existing know-how centres for the search, evaluation, training and development of key managers and training project teams for the market launch of new non-defence products.

The ambitious growth goals of the strategy naturally raises questions or doubts about its feasibility. We clearly understand that more than half of the growth is inorganic and largely depends not only on efforts and competences of the management, but also on the shareholders' involvement, long-term investment planning and efficiency of the state support measures. This is essentially one of the main goals of the Corporation. The efforts of the management, shareholders and government must be co-directional.

At the current stage, the key task of the national industry is maintaining the current path and taking new positions in the world's technology elite club. To some extent, this will determine the industrial development trajectory for the next several decades. This is the nature and goal of our strategy; numbers and indicators are its derivatives. Using them, we can understand its feasibility as early as 2020, when the intermediate results of the

first three years of its implementation will be assessed. We can then make the necessary adjustments based on changes in the foreign policy environment and the development of new markets.

Speaking of the foreign environment, I would like to note the sanctions introduced against the Corporation and its organisations. In no event should this reduce our ambitions. Instead, we must use this opportunity to ensure our growth in the domestic market and markets of partner countries. The sanctions are nothing but a political tool for unfair global competitiveness. We remember this from the sanctions against Rosoboronexport JSC. The Corporation was already able to adapt to the new conditions and maintain its competitiveness. We can see that many enterprises of the Corporation demonstrate growth, despite the sanctions and restrictions. We need to find a development trajectory that will not be restrained by any sanctions. They must become a background for our work, but not the determining factor. Consequently, we need to use our internal development reserves which are still plenty in number. The sanctions are also a reason for an internal reset, allowing us to focus on our operational activities, improve our performance, clear the reserves and get rid of non-core assets.

Since updating its strategy, the Corporation has already developed new fields in light of current trends. They include the application of big data and systems for data transfer and storage; development of the infrastructure in cities of the future; development of telehealth technologies; and the introduction of digital solutions to the energy and transport sectors. All these tasks are already being implemented new products and solutions invented by the Corporation's enterprises. These are huge markets with untapped potential, and the presence in such markets will not only allow to diversify the output of products and utilise our capacities more efficiently, but will also provide our consumers with cross-platform solutions and products capable of protecting critical infrastructure and lives of citizens by designation of authority.

*– In your opinion, how substantiated was the decision to establish the industrial director role within the Corporation?*

– As the assets were grouped into industrial clusters by industry, product, scientific production and technological criteria, it became necessary to ensure the shareholders' focus on the holding companies forming such clusters. This includes the investment and dividend policy, formation of management teams, portfolio management, large mergers and takeovers, control of compliance with the strategy and state defence orders, as well as support of basic initiatives, large or breakthrough contracts and assistance in rehabilitation of distressed enterprises.

For example, certain compact structures emerged inside the corporate centre that oversee the development of industrial clusters through the application of standard corporate governance tools that arrange and direct the activities of holding companies.

The next stage of development of the industrial directors' institute is creating single management companies for clusters. This means that an industrial director who is concurrently a director of a management company will have a personal and measurable responsibility for the performance of the field of which the director is in charge.





In 2018, we will launch pilot projects within the electronic cluster and the cluster for arms, ammunition and special chemistry for the distribution of ownership and management functions and separating the latter into a single holding company as part of the programme for development of the institute of shareholder corporate governance. Certain key performance indicators (KPIs) will be introduced for assessment of performance. Such KPIs will form the basis of the incentive scheme for the management company's team.

**– What are the key results of the work and development of the electronic cluster?**

– We have successfully completed the first reorganisation of assets within the electronic cluster and created divisions by product types in the field of reconnaissance and sensors (Shvabe JSC, Vega Radion Engineering Concern OJSC), automatic control systems (Control Systems JSC), ground and space communications, ground-based electronic warfare systems (Sozvezdie Concern JSC), micro-electronics (Ruselectronics JSC) and cyber security (Avtomatika Concern JSC). Now, customers have an easy, client-oriented interface, and investors understand the limits of their investments.

In 2017, we carried out a kind of road show for our businesses, elaborated the plans to attract private capital and form large partnerships and scheduled transactions' closing dates for 2018. The first joint ventures formed in 2017 started to show results, with more than 10 billion rubles of profit.

The electronic cluster is the closest to the non-defence products and markets due to single platform solutions. It is interesting for private investors due to the current and potential presence in market segments with the maximum growth rate and has the potential to increase its total share of private capital in its businesses up to 50%. This will allow us to significantly reduce the need for budgetary financing, attract managerial competences of the global level and gain access to new markets, technologies and products.

Holding companies of the electronic cluster continue their output of products that have been developed for many years: an A-100 system, sixth-generation communications platform and its components, special mirror for the largest Eurasian telescope BTA located in the Caucasus, cryptographic and cyber security solutions, systems for monitoring and perimeter protection and control, software and data processing services, Earth remote sensing systems and short-wave infrared cameras.

Landmark projects of the electronic cluster also include the development of voting ballot processing systems (VBPS). They were installed in several thousand electoral districts in Moscow and Moscow Region during the most recent presidential election in the Russian Federation.

Enterprises of the electronic cluster continue to develop a critical line of business – the production of Russian-made computers based on the Elbrus computing system. In terms of their technical features, Elbrus computers are equal to foreign equivalents, and they are protected to the maximum extent possible, produced of domestically made components and assembled at Russian enterprises. And the price for a commercial version of the Elbrus-101 will be comparable to foreign equivalents.

In 2017, we participated at the Lomonosov Moscow State University in the establishment of the Centre for Quantum Technologies. Its main objective is ensuring technological advancement in the quantum computations and cyber security field by carrying out research jointly with the leading scientists and institutes of that field. Another faculty at the same university has developed the best klystron accelerator in the world; it is now being built at one of the electronic cluster's enterprises. It will be installed at inspection and screening systems and mobile systems during the 2018 FIFA World Cup.

Some achievements in implementing the business plans of the electronic cluster's holding companies are also noteworthy. In particular, since 2016 the share of non-defence products in the cluster's revenue has been growing consistently (13% in 2016 and 18% in 2017). In 2017, the electronic cluster strengthened its management team in all divisions and positively expects to achieve its operational performance goals as expected, with EBITDA profit in 2020 reaching 18% as compared to 14% in 2016.

We have also prepared our production facilities and the design bureau for the development and output of intellectual products for large consumers in the electrical power, telecommunications,

*Today, the government's attention is focused on the development of digital economy, and we think that the electronic cluster has all the chances of becoming a driving force of digitalization*



intellectual transport systems, healthcare and smart city sectors. Portfolios of orders have already been formed for some of them.

The electronic cluster's divisions continue to develop new forms of interaction with customers, including through introduction of full life-cycle contracts, concession agreements, special investment contracts, etc.

Today, enterprises of the electronic cluster jointly with Russian higher education institutions are developing equipment and solutions for promising energy and telecommunications (software-defined networks, network functions virtualisation), along with artificial intelligence technologies, data processing technologies and algorithms and sensors for the Internet of Things.

Expanding the geography of activities of the electronic cluster's enterprise will also become a major line of development. We expect to propose forming with our foreign partners joint ventures to develop and deploy efficient security and technological sovereignty solutions.

The main growth potential lies in the development of digital products, solutions and technologies. Today, the government's attention is focused on the development of digital economy, and we think that the electronic cluster has all the chances of becoming a driving force of digitalization. The "smart" products output has either already been launched at the electronic cluster's enterprises, or the respective technology advancement has been made.

These platforms and products are being developed using Russian-made electronic components or Russian-designed chips. For example, a microelectronics design centre has been established at the facilities of Progress Microelectronic Research Institute JSC carrying out all forms of design: chip design, architecture design and functional and logical design.

Regarding the top priorities of the electronic cluster's development, I would mention strengthening positions for the development of a smart, coherent and safe world. This includes an increase in the quality of life due to healthcare solutions, smart energy and transport, the development of a trusted, distributed and accessible information environment, protection of personal and big data and the security of critical infrastructure.

All this makes our business interesting for the shareholders, attractive for investors, exciting for our customers and inspiring for our workers.



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*We are focused on the development of the exact competences we need to attain our strategic goals*



**Oleg Nikolaevich Evtushenko** —  
EXECUTIVE DIRECTOR

## **Interview with the executive director of the State Corporation Rostec O.N. Evtushenko**

**A SHIFT FROM OPERATIONAL MANAGEMENT TO THE  
ROLE OF A STRATEGIC ARCHITECT IS THE MAIN CHANGE  
IN THE CORPORATION OVER 10 YEARS**

– Oleg Nikolaevich, in your opinion, what are the main transformations, that the Rostec State Corporation has undergone in its ten years of existence?

– First of all, we need to recall the tasks the country leaders set before us when the Corporation was established: to consolidate industrial assets, increase the enterprises' efficiency, reduce the debt load, form investment-attractive holding companies and, as a result, ensure industry development through the transfer of such assets to interested private investors. And considering the specifics of the Corporation's enterprises that produce mainly military products, it is important to preserve a certain degree of control over such enterprises to ensure the performance of state defence orders.

Those were the main tasks of the Corporation when it was established, and in the ten years since, we have achieved significant progress in implementing them. In particular, the first large-scale recruitment of private investors took place five years ago when Kalashnikov Concern was established. The Corporation made an offer to private investors to buy 49% of shares in Kalashnikov Concern, while reserving the majority interest of 51%.

– Wasn't the first experience in attracting the private investors for VSMPO-AVISMA Corporation PJSC?

– VSMPO-AVISMA Corporation PJSC is a civilian sector company and, as such, recruiting private investors did not require a permit from the Government. I am speaking about the military sector, where involvement of any private investor in any enterprise participating in the performance of the state defence order is a matter of national security.

Returning to the question regarding implementing plans, I would like to say that our assets have long been formed in such a way that we can take advantage of public-private partnerships. This is the exact driver of the main changes that took place within the Corporation across the last ten years. First of all, we have seen a shift from operational management to the role of a strategic architect, meaning that in certain cases we are even ready to withdraw from shareholding in the holding companies to fulfil the main tasks of the Corporation. In other words, we have travelled the path from the operational model to the model of strategic partner for private investors.





**– Will the Corporation’s governance system change as it transitions to the new phase?**

– Yes, I think that each phase is characterised by certain competences. Of course, the foundation of the Corporation formed by the key top managers who possess enormous managerial experience and many of whom have travelled the path from the establishment of the Corporation to the present day should not change. But the functional staff (heads of department and functions) are replaced in conformity with the requirements of the time.

**– Three years ago, the Corporation initiated a staff reform. What are the main tasks of such reformation?**

– The staff reform was connected with the transition of the Corporation from operational management to the role of a strategic architect. Three years ago, the Corporation started to realise that it was necessary to decentralise the governance system. The management system of the Corporation was based on a risk-oriented internal control system. Following a deep audit of the control system, we revealed 17 levels of management from the CEO of the Corporation to production facilities. On each level, there are certain risks that we classified by the control level. Each risk was assigned a colour: “red” risks are controlled by the headquarters; “yellow” risks are controlled on the level of holding companies’ directors; “green” risks are allocated to the level of individual enterprises and are not subject to control by the headquarters, as they do not affect the strategy and the financial stability of enterprises. The staff changes within the Corporation are connected with this new system. As a result, the headquarters reserved only the control and audit and methodological and financial functions, and most functions have been transferred to holding companies. We will continue the reforms, as we understand that we still possess a significant scope of authorities that could be transferred elsewhere.

The Corporation can also affect the key decisions made by holding companies by using, inter alia, such a governance tool as the board of directors.

**– Are there any independent directors included in the boards of directors?**

– Independent directors still rare in number. But their inclusion is expected to take place at the next phase when their participation will be required, including for purposes of balancing the positions of the Corporation and investors.

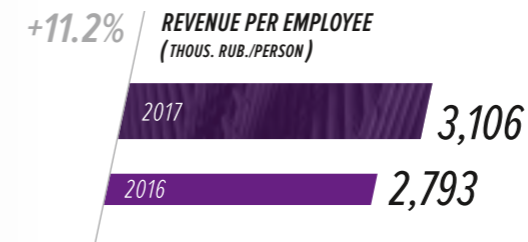
**– Without any doubt, the the staff reform was prepared based on the experience of other state corporate governances. What are the key differences of the Rostec State Corporation’s staffing policy from that of the other corporate governances?**

– We did carry out some analysis, but it was more related to the governance model rather than staffing matters. To a significant extent, the Corporation is unique as a result of the reform of both the industrial directors in charge of the “business” and the managing directorate included in the headquarters. I would call it a kind of symbiosis of the elements of divisional and functional models. We call the divisional model’s elements “industrial clusters”. They combine one to five holding companies whose proceeds include hundreds of billion rubles.

Today, among other tasks, we are working to find a better balance in the interaction of the industrial directors and the holding companies: on the one hand, it is important that they carefully watch over the business development and promote the achievement of strategic goals set for the holding companies by the Corporation, but on the other hand they should provide a certain degree of liberty to the management and not interfere with the holding companies’ operational activities.

The industrial directors must represent the clusters both within the Corporation by ensuring efficient interaction with other clusters and enterprises, and also while interacting with governmental authorities, external partners and the cluster’s customers.

*Assets of the Corporation have long been formed in such a way that we can take advantage of public-private partnerships. This is the exact driver of the main changes that took place within the Corporation over the last ten years*



**– What is the Rostec State Corporation’s approach to improving the candidate pool?**

– We started to make improvements to the candidate pool system in 2015. We held several sessions involving the Corporation’s management, management of holding companies and the most promising employees with the purpose of clarifying and discussing the Corporation’s 2025 Development Strategy. It was then that we laid the foundation for what became the Corporate Network Academy (CNA) in 2017.

The Rostec State Corporation’s CNA differs from similar academies of many other companies: it does not imply any significant capital investments to construction of campuses and academic buildings. We are focused on developing the exact competences we need to attain our strategic goals.

In particular, the first course developed as part of CNA is aimed at developing the competences, capabilities and know-how in employees of the civilian industry sector, which is a strategic task for the Corporation. Therefore, we are prioritising this line of work when forming the candidate pool.

**– Could you offer an intermediate evaluation of the Corporation’s strategy implementation at the two-year mark?**

– The 2017 results show that, in general, the Corporation’s Strategy is going according to plan. Of course, increasing the civilian sector’s share in the consolidated revenue is a challenge. But I think that the Corporation’s strategy can be implemented by attracting new employees, building an efficient incentive system and developing the Corporate Network Academy.



# Interview with the director for legal support and corporate governance of the State Corporation Rostec A.S. Laletina

*WE SYSTEMATICALLY INCREASE SELFSUFFICIENCY  
OF THE CORPORATION'S ORGANISATIONS*

– From your point of view, what are the most important changes that have taken place in the Corporation's corporate governance system over the last 10 years?

– First of all, I should note that 10 years ago there was almost no corporate governance system at the Corporation. Since its establishment, the Corporation has received more than 400 detached assets as a property contribution. Today, the Corporation's structure includes more than 700 organisations, and our key achievement is that the Corporation's corporate governance system has been built and is continuously improved.

The systems were built gradually, by stages. First, we formed integrated structures in the form of holding companies. During the next stage we established the corporate governance system and formed models of holding companies' management depending on the degree of the Corporation's participation in their control. As of today, the holding companies' control is based on business-oriented models: the holding companies correspond to strategic, investment and operational models of management.

The approach to management has also changed: previously, managerial decisions were made primarily based on the past, but now the focus has shifted to preventive

control. Our main task today is development of the Corporation's organisations and ensuring their integrity and prevention of any loss of assets. This is exactly why the Corporation has a special mode for assets' assignment, issue of suretyships, and performance of transactions related to pledges and other encumbrances.

– How would you assess the current level of the Corporation's corporate governance, particularly as compared to other Russian state corporations?

– The level of corporate governance at the Rostec State Corporation is high not only as compared to other state corporations, but also as compared to the largest shareholding companies of the Russian Federation. We firmly hold equal positions with such corporations and companies, and sometimes even surpass them.

The corporate governance system is one of the key tools for managing the Corporation's assets. It is being developed in conjunction with advanced corporate governance tools and the best international practices, and it is highly appreciated by experts and partners.

The corporate governance system is being built in compliance with the relevant legislation of the Russian Federation with due regard to the corporate governance

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VALUE OF  
INTANGIBLE ASSETS  
OF THE CORPORATE  
GOVERNANCE'S  
ORGANISATION  
GREW BY

25%

OVER THE YEAR

Alla Sergeevna Laletina —

DIRECTOR FOR LEGAL SUPPORT AND CORPORATE GOVERNANCE





NUMBER OF PROTECTED INTELLECTUAL  
PROPERTY ITEMS GREW IN 2017 BY

18%

principles of the Organisation for Economic Co-operation and Development (OECD), recommendations of the Corporate Governance Code and the best corporate relations practices for purposes of achieving the goals and priorities defined by the Corporation's Development Strategy.

The role of the Corporation itself as the corporate centre is a product of the institutional management environment, primarily through the corporate governance system and the introduction of single standards for the corporate governance of assets.

Pursuant to the Corporation's Development Strategy, various approaches to the corporate governance of holding companies and directly controlled organisations have been developed and updated, along with standard articles of association for the Corporation's enterprises pursuant to the applicable models of corporate governance.

The Corporation strives to establish partnerships with private investors, and we make arrangements under shareholder cooperation agreements in such a way that eliminates any shareholding conflicts. I would like to emphasise that we are not merely a majority, but also a minority partner. This is a brand new level of governance.

Another line of the Corporation's business is the invention of multi-purpose solutions for integrating new assets into the Corporation. Previously, such integration used to take 2-3 years, but now the enterprises have been fully integrated into the current structure of the Corporation in one year. Such integration includes not only the approval of standardised documents, but also connection to the information resources of the Corporation (Database of Statutes, Database of Assets, etc.), inclusion in the structure of the corporate Treasury, signing the Unified Procurement Provisions of the Rostec State Corporation and other processes. For example, in 2017, UralVagonZavod Research and Production Corporation JSC was incorporated into the structure of the Corporation, and today it is already fully integrated into operations.

If the country's leaders so decide, we are ready to work with new assets. The Corporation has elaborated a ready-made algorithm for integrating new enterprises into the Corporation's system and preventing any deterioration of the situation within the enterprises themselves.

– *What elements of corporate best practices are you going to deploy at the Corporation in the near future? What improvements do the current models of governance of the Corporation's holding companies and organisations require?*

– The Corporation is continuously evolving, and the corporate governance is being consistently improved.

We have already deployed all applicable current corporate governance models and best practices, but we still continuously review opportunities for improvement and search for new solutions with regard to each industry's specifics.

The Corporation's Management Board approved and introduced the following new corporate governance models to reform and update the corporate governance system in compliance with the legislation and the Corporation's Development Strategy: strategic, investment and operational. The models take into account the specifics of not only the corporate governance itself, but also the technological development of the business and the holding companies' systems of assets as a whole.

Additionally, the Corporation has approved the Concept for the Management of Assets to be introduced as part of the initiative for reforming and developing the holding companies' governance system. Previously, the corporate governance system was based on the level of shareholding interests' management level as a whole, but now we are building the system on the assets management level.

I should separately emphasise that we systematically follow the trend of increasing self-dependence among the Corporation's organisations while preserving control over assets' integrity. Finding this balance is the priority of the corporate governance system's evolution process.

*Our key achievement is that the Corporation's corporate governance system has been built and continuously improved*

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– *You have previously mentioned plans to introduce electronic personal profiles for members of the Corporation's board of directors. How is this initiative going?*

– The electronic personal profiles for members of the boards of directors of the Corporation's organisations have already been introduced and are being tested. The work was conducted with the involvement of NIPS PJSC, an organisation of the Corporation. Considering the specifics of the work and the need for information protection, we strive to engage various organisations of the Corporation that possess the necessary qualification and the capability of creating such technically complex software products.

I have worked with many software products of various developers, and based on my experience I can say without reservation that the software program developed by the specialists of NIPS PJSC meets the highest standards. I must emphasise that all the Corporation's requirements as the customer are always fulfilled

within the shortest time possible. For example, today we have already entirely updated the interface following the testing results.

We are now adjusting templates and introducing an automated process for convening meetings to increase the efficiency of planning of the entire work of the board of directors and to enable the corporate secretary to reduce the time required to make preparations for the meetings by several times.

In the second quarter of 2018, we expect to increase the number of organisations involved in the pilot project. Today, such organisations include RT-Business Development LLC and Shvabe JSC. In the second quarter of 2018 we expect to hold the first meeting of the board of directors using this software product.

Following the beta testing, the electronic personal profile will be integrated with the Database of Assets for purposes of corporate governance, then commissioned and offered for use to the Corporation's organisations.



– *What other digital technologies and digitalization elements are you going to introduce into the Corporation's corporate governance system in the nearest future?*

– One of our tasks is the maximum digitalization of processes. Since 2015, we have been actively using and introducing the Corporation's Database of Assets in the Corporation's organisations. Timely managerial solutions mainly depend on updated and accurate information that can be obtained in an online mode. We do not force our best practices, and we continuously improve the already-introduced systems by adding new components, integrating and combining them to create a centralised database.

Regarding legal and corporate work, we abide by the principle of storing information in writing. Eventually we will face liberal interpretation of our words and conclusions due to the specifics of our work, and only written proof is objective. The Corporation's Database of Assets contains an electronic array of data that stores all the documents and history of review of certain issues.

In 2018, we expect to improve the Database so as to create an electronic exchange for non-core assets of the Corporation, and considering that the Database will be actively deployed at the Corporation's organisations, we will essentially create a unique system that will reflect updated information about the assets of the Corporation's organisations.

– *What are the Corporation's achievements in the field of intangible assets in Russia and abroad?*

– In 2017, the Corporation finished creating a database of statutes governing intellectual property rights. Pursuant to the standard and methodological recommendations of the Corporation, the parent organisations have developed patent strategies for its holding companies, including the lists of key products and basic technologies as approved by the Corporation.

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*The level of corporate governance at the Rostec State Corporation is high not only compared to other state corporations, but also compared to the largest shareholding companies of the Russian Federation*

As a result, the number of protected intellectual property items owned by the Corporation's organisations has grown by 18% in 2017, exceeding 19,600 items, despite continuous withdrawal of obsolete intangible assets and the reduction of patent activity in the Russian Federation in general by 15% (according to Rospatent). And the value of intangible assets of the Corporation's organisations has grown by more than 25% across the last year.

Apart from the intellectual work, another critical type of intangible asset is the means of individualisation (trademarks and company names). The Corporation's trademarks have already been registered in 25 states, and in two more countries the registration is pending.

Regular work is carried out for prevention of unauthorised use of the Rostec name by other organisations other than the Corporation's organisations. Their number has decreased by 77% since 2015.

– *What legal challenges did the Corporation face after the Rostec State Corporation and its organisations were subjected to Western sanctions?*

– This matter is quite sensitive for us. The Corporation and its organisations have been working under conditions of sanctions imposed by the USA and the European Union for several years already.

No party benefits from the sanctions. But as lawyers we have lots of work to do: the Corporation has a team of highly qualified specialists providing comprehensive support not only to the Corporation, but also to its organisations.

We are standing our ground and are ready to defend the interests of our organisations, and that is exactly what we are doing today. Our partners must understand that the use of sanctions is not a constructive approach, and the evasion of duties on

the pretext of sanctions could not lead to any positive results. No organisation of the Corporation will find itself in a situation where we do not support and protect it.

– *What is your main personal achievement during your years of work at the Corporation?*

– I think that one of my most important personal achievements over my period of work at the Corporation was building the strongest team of professional lawyers and corporate governance specialists, and I am talking about not only at the headquarters, but also about the employees of holding companies and directly controlled organisations of the Corporation. Each specialist is unique, and I consider us extremely fortunate that we managed to build and retain such a strong team of like-minded people. And I would also like to note that the members of our team very rarely leave the boundaries of the Corporation's structure.

Our team is made up of ultimate professionals ready to overcome any challenge or problem that arises in our work.

– *What is your vision of the Corporation in 10 years?*

– Without any doubt, I see it as more powerful, prosperous and efficient, achieving all of its goals and fulfilling any tasks set for it by the President of the Russian Federation.





# Interview with the Chairman of the Scientific and Technical Council of the State Corporation Rostec Y.N. Koptev

*THE HIGH COMPETITIVE CAPACITY OF OUR PRODUCTS  
DEMANDS THAT WE CONTINUOUSLY DEVELOP OUR SCIENTIFIC  
AND TECHNICAL FOUNDATIONS*

– Yury Nikolaevich, you have been working at the Corporation since its establishment and chair the Scientific and Technical Council. Please describe the scientific and technical work of the Corporation during its early years.

– To be precise, the Corporation was established in November 2007, and I joined it in May 2008, so my tenth anniversary of work at the Corporation is still to come. Before 2004 I worked in the rocket industry and space and missile industry. During the Soviet times, following my work at various enterprises, I served as the head of the Main Department of the General Mechanical Engineering Ministry. I also used to be the Deputy Minister, worked at the Russian Space Agency and then headed the Department of the Defence Industry Sector of the Ministry of Industry and Energy. As a result, I gained managerial experience not only in the rocket industry alone, but in the defence industry sector as a whole.

Initially, the Corporation's structure received certain assets that were mostly distressed. As everyone knows, the 1990s were a hard time for the Russian defence industry sector's enterprises – the scope of state defence orders decreased massively. The new conditions demanded that directors of enterprises apply new management approaches and tools.

But the senior management and employees of those enterprises succeeded in maintaining the high scientific and technical potential they accumulated during Soviet times. And even though these enterprises needed to be saved using primarily economic methods, we realised that their competitive capacity would to a large extent be defined by introducing of scientific and technical developments.

– How was the idea of establishing scientific and technical cooperation developed? What were the goals of such cooperation?

– The Scientific and Technical Council of the Corporation was formed in 2009 as an advisory body composed of specialists with knowledge and experience in developing, producing and exporting technologically advanced products.

The Scientific and Technical Council developed the first programme for scientific and technical development of the Corporation. The scientific and technical cooperation (STC) specialists searched for new technology solutions based on Russian scientific achievements for purposes of raising the scientific and production potential of the Corporation's enterprises, and some problems were solved with the use of foreign experience.

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*Identifying the Corporation's competitive advantages is the top-priority task for us as the unit in charge for articulating the innovative development programme*



*Yury Nikolaevich Koptev —  
CHAIRMAN OF THE SCIENTIFIC AND TECHNICAL COUNCIL*



Our main task corresponds to the Corporation's goal – assisting in the development, production and export of advanced technology industrial products. In order to achieve this goal we need to maintain high competitive capacity of products, and high competitive capacity demands that we continuously develop our scientific and technical foundations.

We are competing with the leading companies of the world in almost every market where we are present. Determining the Corporation's competitive advantages is the top-priority task for us as the unit in charge of articulating the innovative development programme. This programme is our fundamental pillar, and we can plan the Corporation's development around that pillar, including in terms of extending the product line.

**– What are the key tasks of STC today as you see it?**

– Today, it is extremely important to advance our efforts for developing the civilian industry sector. These efforts will, to a large extent, ensure the further existence and improvement of the centralised management system, and transfer of technologies from military to civilian sectors and back again.

Our top-priority tasks today also include promoting the efficient interaction and information and knowledge sharing both inside and outside the Corporation's enterprises. It requires careful analysis and organisational decisions. As of today, this work is still in progress, and I think that even more work awaits us in the future.

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*The efforts to develop the civilian industry sector will, to a large extent, ensure further existence and improvement of the centralised management system and transfer of technologies from military to civilian sectors and back again*

**– What is the role of the Corporation's cooperation with young technology-oriented companies for purposes of promoting scientific progress?**

– By all means, large-scale scientific development is impossible without engaging young, technology-oriented companies.

The best practices utilise certain widespread tools that can apply the principles of venture investments within corporations – the so-called corporate venture funds. Of course, introducing and adopting such tools and practices is important, and the Corporation is paying necessary attention to this issue.

**– As you know, global industry leaders are actively investing in new developments, but our defense sector products nonetheless are still of higher quality. Will it be possible to preserve this advantage in 10 or 15 years, while reducing the scope of investments?**

– It should be acknowledged that the basis of our advantage in the arms field was formed in the Soviet period. And today we are striving to lay a new foundation for scientific development in the defence industry sector to preserve this advantage.

But we should remember that the drivers of such development are located both inside and outside the Corporation. Development of the defence industry sector is directly connected with a whole series of related industries. For example, the Corporation's enterprises produce high-quality products made of composite materials, but the composite materials are made of raw materials imported from abroad. This is the exact reason why we need to promote scientific and technical development not only inside the Corporation, but also with large scientific and education institutions and leading companies of other

industry sectors. As part of this work, the Corporation has already signed a series of agreements with the Russian Academy of Sciences, the Skolkovo Innovation Centre and several higher education institutions. Efficient cooperation among all participants of the innovative process is key to the successful development of the Corporation.

We have ensured efficient interaction with higher education institutions through a system of core departments at universities where various specialists of the Corporation's enterprises give lessons. As of today, there are more than 300 core departments.

**– In your opinion, will this approach allow us to preserve the technological balance?**

– Yes, it will, and as an example I can mention our successes in the military industry, where we have achieved significant results, despite limited resources as compared to the global competitors. In particular, Russian-made S-400 surface-to-air missile systems are highly valued today worldwide, despite great competition.

But we should remember that our competitive advantages in the market are primarily based on the achievements of the scientific progress. So, the long-term development of the Corporation requires further special attention to creating the conditions for the research and development work, creation and deployment of new inventions.





# Interview with the director for special commissions of the State Corporation Rostec V.Y. Brovko

## A STRONG BRAND WILL HELP US COMPETE AND CONQUER NEW MARKETS

– It has been five years since the rebranding of the Rostec State Corporation. What were the main goals of the Corporation's rebranding?

The rebranding was carried out to present the Rostec State Corporation as the largest world's conglomerate and a leader in many Russian industry sectors and high technologies. Clearly defined brand positioning is a must for such corporations. A strong and well-known brand is a key asset that promotes further attraction of investments and employees. This is a means to explain the logics of behaviour in achieving the strategic goals. Regarding our Corporation, the creation of the new brand turned out to be a very important tool to visually reflect the changes that have occurred in the Russian industry. 5 years later, we can confidently say that rebranding was necessary to establish a new dialogue with the external audiences. A successful case of the Corporation's rebranding allowed us to create a new style in the industry. We are true pioneers in this field and have triggered a chain reaction in the entire sector. First, rebranding was carried out by our holding companies and then by the Ministry of Industry and Trade of the Russian Federation. It has definitively set new trends in industrial rebranding and communications, and the entire Russian industry has gained a brand new look. And I think the Corporation's contribution to such changes is huge.

– What meaning was put into the new logo of the Corporation?

– The Rostec State Corporation's logo is an open square that symbolises a window to the world and the in-focus

frame. The meaning of our logo was once very metaphorically described by one of the creators of the new design, currently the industrial director of the radio-electronic cluster of the Corporation, Sergey Kulikov: "The enterprises of the Rostec State Corporation find themselves inside a protected field, and at the same time they are located in the central point of the focus of our attention, and that promotes their development, the inflow of investments and invention of innovative products". I believe that we succeeded in creating a simple and clear, yet meaningful graphical language. By creating a shorter name – Rostec, we managed to preserve an equal number of symbols, thus enabling us to cross-functionally work with any media and in any territory.

Another important element of the Corporation's brand system is our slogan, "Partner in the future". And we can see a double meaning here: we are a partner in the future for others, but at the same time we are also intensively growing. This is reflected in the Corporation's growth rates since the rebranding five years ago.

We are specifically proud of our international slogan, Partner in the Future, meaning that we are not a short-term partner and that we are helping to create the future.

In my opinion, it sounds very accurate, ambitious and idealistic.

– In your opinion, what is the most visible effect of the change in the Corporation's name? And how did you manage to achieve it?

– One of the most visible effects of rebranding is that the

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The rebranding was carried out to present the Rostec State Corporation as the largest world's conglomerate, a leader in many Russian industry sectors and high technologies



Vasily Yuryevich Brovko —  
DIRECTOR FOR SPECIAL COMMISSIONS



new Corporation's name is entirely rooted in the information realm and pushed out the previous name. Why did the new name work out? Because it is a really good one. It so happened that we did not have to invent the new name – it emerged organically, by evolution. Rostec is a short name for Rostekhnologii. This modern name is a combination of the respect towards the Corporation's past and the aspiration for the future. Rostec perfectly fits into the communication in different languages of the world. It is easy to pronounce and write, yet equally easily comprehensible by Russian and foreign audiences. In the several years since its introduction we can confidently say that the new name of the Corporation allowed us to attract more partners on the global market, and now it has become a truly international name.

But our challenge was not only to invent a new brand, but also to introduce it into the Corporation, especially considering the scale of the Corporation and its multi-industry assets and an enormous range of products. The new brand required us to "implant" it into the body of the Corporation so as to make the system not only understand the new meanings, but also reproduce them. I am personally proud of the fact that we managed to embed the brand across the entire Corporation and keep it in place so as to make it work. And it works! Fairly recently,

RBC Information Agency published a public poll among graduates of technical higher education institutions. The graduates were asked, "Where would you like to work?" The Rostec State Corporation was in the "dream job" list along with General Electric and Schneider Electric.

This indicates that for one of our audiences, i.e. young, smart and educated people, we have become a place where they would like to realise their creative and professional aspirations. For us, this is a very important indicator of the success of the Corporation's brand.

**– One of the rebranding goals was to make the Corporation more open, including for external communications. Was this goal achieved?**

– Yes, it was. Among other matters, the slogan "Rostec – Partner in the future" was based on the principle of open information that forms the modern and positive image of the Corporation. Five years ago, Sergey Chemezov, the Corporation's CEO, said that openness of the information realm is a top-priority of development. For the last five years, our growth and development were watched by the public: we have always been open to the press and always communicated with them respectfully, as equals. We have built a system for cooperation with the mass

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*The Rostec State Corporation's logo is a symbol of our vision of the Corporation: an open square that means a window to the world and the in-focus frame*

media and the expert community that works like a clock. All this has made us truly understandable and transparent. An important part of rebranding was creating a website to reach our audiences in seven languages, and we were the first to do so in Russia.

Now we use the official website of the Corporation not only as a platform for publishing corporate news, but also as a source of unique and current information for the public and the professional mass media. In order to do so we registered the Corporation's website as a media project. In 2017, almost 5 million people visited our site, averaging more than 20,000 people daily. Our social media accounts have more than 600,000 subscribers from various countries of the world.

In terms of mass media indicators, the number of publications containing references to the Corporation has grown over 5 years by 400 times – from 1,200 publications in 2012 to 475,000 in 2017. We have focused on positioning the Corporation in foreign strategic markets, like in Southeast Asia, Latin America, Middle East where almost no one knew about the Corporation. As of today, the Corporation's CEO is regularly included in the weekly top-10 of major and most cited spokespersons of Russian companies.

We have created two industry-specific platforms for target audiences. The first one is the Digital Industry of Industrial Russia (DIIR) conference – a cross-industry platform for a global dialogue dedicated to the development of the digital economy, non-resource export and cybersecurity among industry players, professionals of the IT, telecommunications and defence industries, venture capital investors and the government. In 2017, the conference was held for the second time at Innopolis in the Republic of Tatarstan. Delegates of the forum included more than 8,000 people across two years. The second platform is the Biotechmed conference, held in Gelendzhik – a forum where professionals of the medical and biological industries, medical equipment specialists, IT industry experts and representatives of the governmental authorities develop integrated solutions to solve biotechnology and biomedicine challenges.

Overall, I must say that we succeeded in sparking interest towards the industry among absolutely different people. Not only that, we managed to make them fall in love with it. The Corporation has something to be proud of.

**– What was the reason for the registration of your own media project? Are there not enough publications covering the industry-related topics?**

– First of all, the registration and promotion of a corporate communications channel is a global trend that establishes a direct link with the target audiences and allows to form even more information agendas.

Secondly, considering that the Corporation combines more than 700 enterprises from various sectors, we are a carrier of know-how and exclusive content that can be, and must be, broadcast independently. The Rostec State Corporation is one of the largest news generators in Russia.

**– What communications priorities does the Corporation has in the next few years?**

– The communications strategy is based on the Corporation's business tasks, which means that increasing the share of non-defence products and diversifying and converting the production facilities find their reflection in the communications approaches, too. Entry into competitive civilian markets stimulates us to be even more transparent and agile.

For example, one of the top-priority tasks is to actively promote "smart" technologies. We are creating the digital future of Russia and need to focus our attention on the markets for key ecosystem projects that will later become an important factor in developing the Corporation's civilian segment. This includes projects implemented as part of the Digital Economy of the Russian Federation federal programme.





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*The Rostec State Corporation sees its participation in sponsored and charity projects as a great opportunity to contribute to the development of society*



*Yulia Anatolyevna Voronova —*

*ASSISTANT TO THE CEO OF THE CORPORATION FOR SOCIAL PROJECTS*

## **Interview with the assistant to the CEO of the State Corporation Rostec for social projects Y.A. Voronova**

### **THE CORPORATION ALWAYS CONNECTS ITS BUSINESS GOALS WITH SOCIAL INTERESTS**

*– The Rostec State Corporation pays a lot of attention to sponsorship and charity. In your opinion, what is the most important project of all implemented with the support from the Corporation?*

The Rostec State Corporation pays a lot of attention to participating in sponsored and charity projects and sees them as a great opportunity to contribute to the development of society.

All projects supported by us, irrespective of their budget or scale, are important to us, given the ultimate goal behind each of them of improving the quality of life in our country. The Corporation implements many projects, and I cannot take the liberty of choosing the most important ones, whether it is education or medicine, science or art, sports or culture. Regarding the major projects, I would point to the world's largest festival of military bands Spasskaya Tower and the Rostec International Fireworks Festival.

*– What other projects or organisations receive regular charity or sponsor support from the Corporation?*

– First of all, it should be noted that sponsor and charity assistance by the Corporation is always targeted, meaning that the funds are allocated to support certain projects. Such assistance is planned on a yearly basis and the number of projects continuously changes.

Of course, we have been cooperating with some partners for many years. They include the previously mentioned Spasskaya Tower festival that has been supported by us almost since its establishment, the Family Circle National Programme and the Russian Corporate Games.



Every year, many projects supported by the Corporation grow and attract more and more participants and visitors. This means that the decision to provide assistance to a project at the stage of its growth was correct.

**– What are the basic principles for selecting charity projects for support from the Corporation or its involvement?**

– The Rostec State Corporation always correlates its business goals with social interests. This is why we primarily take into account social and managerial factors of projects when selecting them. They must be aimed at ensuring sustainable development of the market segments and regions where the Corporation's companies are present.

**– Please describe the decision-making process for participating in sponsored or charity projects.**

– The decision to participate in a project is made collectively by the Corporation's Management Board. Of course, all applications are comprehensively processed by experts prior to approval thereof: the project history, its potential and its alignment with the business goals of the Corporation are reviewed.

It should be noted that the Rostec State Corporation applies a single approach to charity and sponsor support. For that purpose, special rules have been developed to define the procedure for reviewing and approving applications, and these rules are followed by all companies and holding companies of the Corporation. This allows us to abide by a single sponsorship and charity policy on all levels.

**– Does the Corporation use any other forms of charity apart from financial assistance?**

– Yes, definitely. First of all, such forms include participation of the Rostec State Corporation's employees in charity projects, meaning that our staff also provides help. For example, 150 employees from more than 30 enterprises of the Corporation participated in the WorldSkills championship of blue-collar workers in 2017. The Rostec State Corporation's teams also participate in annual sports competitions such as the Russian Corporate Games, the Striking Ten Championship or the Box Championship, and quite often they win medals.

The Corporation can also provide information support to events. We possess wide capabilities for disseminating information about any event among the widest audience possible.

**– What social projects will be a priority in the coming years?**

– One of the Rostec State Corporation's missions is recreating the working intelligence class and increase the occupational prestige of qualified labour. So, the Corporation supports educational and scientific development projects, competitions and workshops that allows us to attract talented and motivated youth to work at the enterprises. This social work will remain a top priority for us.

We will also pay attention to projects that conform to the current and approved requirements in terms of sponsorship and charity. We will continue to provide support to state social projects and the development of social infrastructure in the Russian regions.

The focus of our attention will also include cultural, arts and educational projects, as well as physical education and sports, to support the formation of a healthy generation.

*The Corporation's sponsorship and charity assistance is always targeted, meaning that the funds are allocated to support certain projects*

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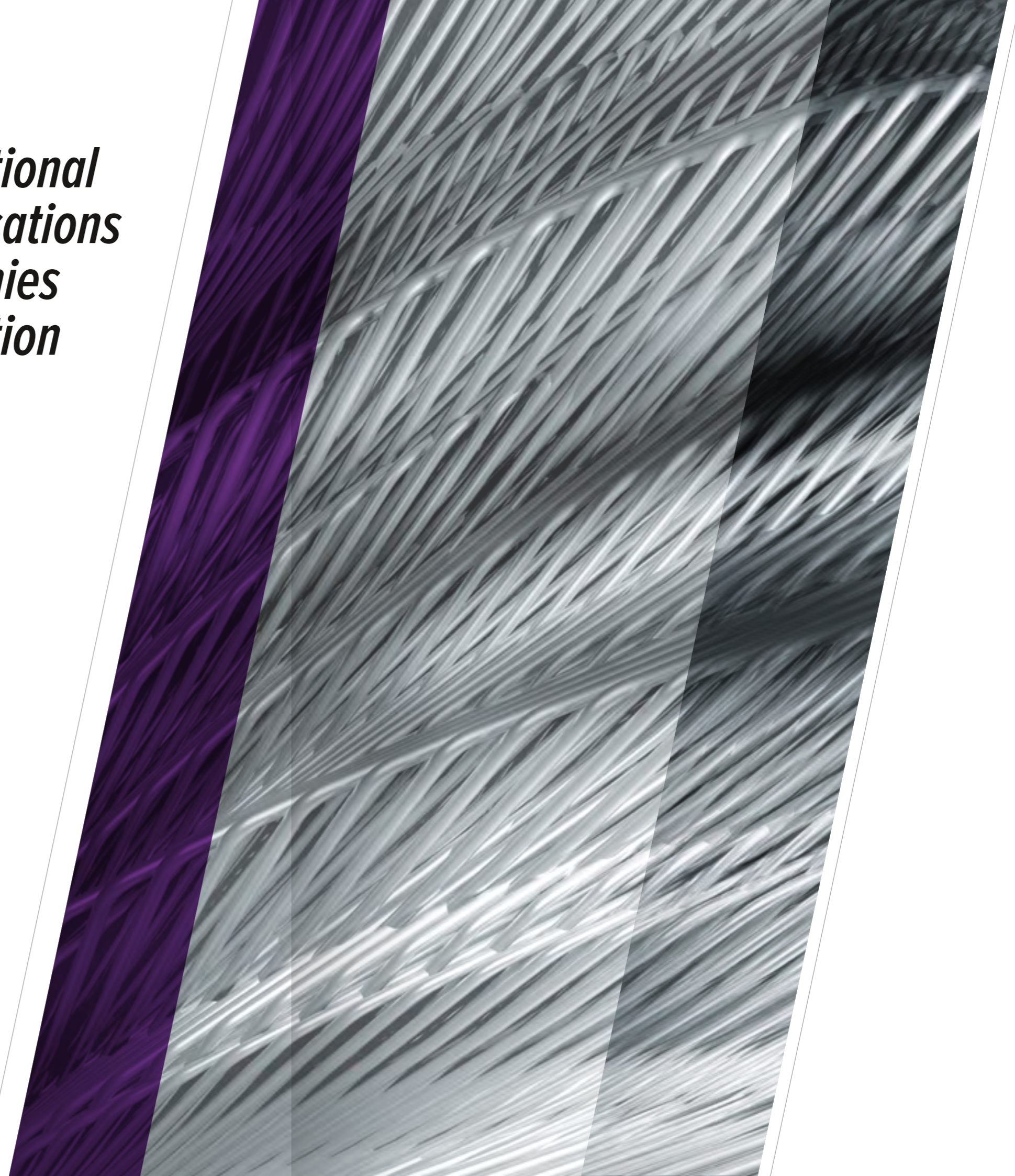
**– What is your main personal achievement over your years of work at the Corporation?**

– I am lucky enough to have worked at the Rostec State Corporation since its establishment. I remember how many challenges and problems the team of Sergey Viktorovich Chemezov had to face and solve. The organisations transferred to the Corporation already had their own experience and proven practices, including those related to sponsorship and charity.

We had to elaborate single standards, introduce single approaches and principles towards decision-making for projects' support, and create a vertically integrated structure. I must admit that it was hard, but today I can confidently say that we work transparently and quickly, as a single mechanism.



### 3.4 *Overview of operational activities of organisations and holding companies of the State Corporation Rostec*





## 3.4.1 *Aviation Cluster*







## United Engine Corporation JSC

*One of the top priorities of UEC JSC is implementing integrated programmes for the development of the industry's enterprises and introduction of new technologies in compliance with international standards*



### KEY ACHIEVEMENTS AND EVENTS IN 2017

- Flight tests of Su-57 aircraft were completed.
- Flight tests of PD-14 Russian-made civil aviation engine were completed.
- Research and development and launch of commercial output of gas turbine engines was successfully completed.
- The first Russian-made high-capacity energy gas turbine engine was tested.
- Russian-Chinese memorandum of agreement was signed for the manufacture of an engine for the long-range wide-body aircraft (LRWBA).
- Flight tests were completed for the most advanced TV7-117ST engine for Il-112V and Il-114-300 aircraft.
- Agreements were signed with Gazprom PJSC for the creation of a unified gas pumping unit with a capacity of 25 MW.

### DESCRIPTION OF COMPANY

United Engine Corporation JSC (UEC JSC) is a holding company specialising in the development, commercial output and service maintenance of engines and gas turbine units for:

- military and civil aviation;
- space programmes;
- the navy;
- the oil and gas industry and energy sector.

One of the top priorities of UEC JSC is implementing integrated programmes for the development of the industry's enterprises and the introduction of new technologies in compliance with international standards.

### BOARD OF DIRECTORS



CEO

Alexander Viktorovich Artyukhov



CHAIRMAN OF THE BOARD OF DIRECTORS

Vladimir Vladimirovich Artyakov

CEO FIRST DEPUTY OF THE ROSTEC STATE CORPORATION  
Vladimir Vladimirovich Artyakov

CEO OF UEC JSC  
Alexander Viktorovich Artyukhov

CEO  
RUSSIAN HELICOPTERS JSC  
Andrey Ivanovich Boginsky

DEPUTY CEO OF THE ROSTEC STATE CORPORATION  
Dmitry Yurievich Lelikov

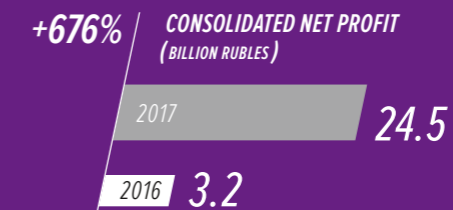
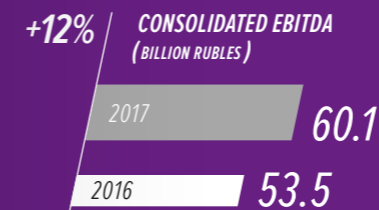
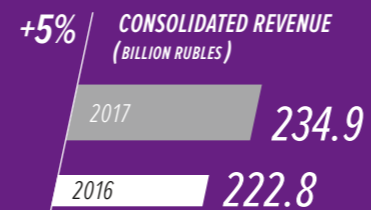
DIRECTOR FOR LEGAL SUPPORT AND CORPORATE GOVERNANCE OF THE ROSTEC STATE CORPORATION  
Alla Sergeevna Laletina

INDUSTRIAL DIRECTOR OF THE AVIATION CLUSTER OF THE ROSTEC STATE CORPORATION  
Anatoly Eduardovich Serdyukov

DIRECTOR FOR ECONOMIC AND FINANCIAL AFFAIRS OF THE ROSTEC STATE CORPORATION  
Kirill Valeryevich Fyodorov

### GROWTH DIRECTIONS

- Implementation of top-priority projects for the creation and launch of commercial output of advanced aviation engines: SaM-146; a group of engines for military aviation, helicopter engines, engines with a 9-18 t thrust for civil aviation.
- Introduction of "lean production" practice at all enterprises of the holding company.
- Mastering additive technologies (AT) at all primary enterprises of the holding company for the production of Russian-made gas turbine engines.
- Preserving at least 70% of the Russian market for gas turbine equipment.
- Orientation towards the global market and alliances in regional markets. The share of UEC JSC's exported products are expected to reach 40% of the total sales volume by 2020.







## Russian Helicopters JSC

*Russian Helicopters JSC is a global leader in the segment of medium- and super-heavy and attack helicopters and is the only developer and manufacturer of helicopters in Russia*

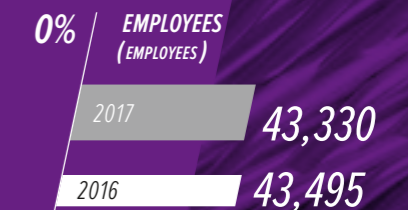
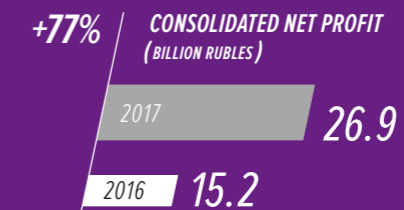
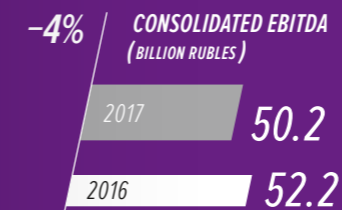
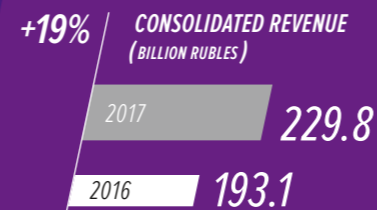
The holding company's structure includes a design bureau, helicopter plants enterprises producing, servicing and repairing the components, aircraft repair plants and service companies.

The model range of the products manufactured by the holding company primarily includes helicopters of the medium- and super-heavy class of the civil and military segments such as Ka-226T, Ansat, Ka-62, Ka-32A11VS, Mi-171A2, Mi-38, Mi-26T, Mi-8/17, Mi-28H Night Hunter, Ka-52 Alligator, Mi-35M, Ka-27, Ka-31, Mi-26.

As of 2017, the holding company's enterprise manufactured 22% of the world's fleet of military helicopters.

### KEY ACHIEVEMENTS AND EVENTS IN 2017

- Jointly with Vega Concern JSC, the holding company commenced preparation for the joint development of shore and ship-based systems with unmanned aerial vehicles (UAVs) of helicopter types for the Ministry of Defence of the Russian Federation and other security agencies.
- First helicopters export of Mi-28NE Night Hunter attack helicopters equipped with an airborne defence system was made.
- The holding company prepared for the commercial supply of upgraded multipurpose Ka-27M for the marine aviation of the Russian Navy.



### BOARD OF DIRECTORS



CEO

Andrey Ivanovich Boginsky



CHAIRMAN OF THE BOARD OF DIRECTORS

Vladimir Vladimirovich Artyakov

- In 2017, the Ministry of Defence of the Russian Federation received a batch of Mi-8MTV-5-1 military transport helicopters manufactured by Kazan Helicopters PJSC ahead of schedule.

### GROWTH DIRECTIONS

- Light vehicle (Ansat, Ka-226T) output was increased to promote the presence in the international market.
- Developing an advanced medium-heavy commercial helicopter (AMHCH) to ensure a long-term income flow by entry into the market of the new aerial vehicle.
- Building out the holding company's innovative structure.
- Digitalization of the management field; modification of management structures; improvement of partnerships in the scientific and products fields; cooperation with the development institutes.
- Improvement of mechanisms for investments and incentives in the innovations field.
- Improvement of production and labour performance.

CEO FIRST DEPUTY OF THE ROSTEC STATE CORPORATION  
Vladimir Vladimirovich Artyakov

CEO OF RUSSIAN HELICOPTERS JSC  
Andrey Ivanovich Boginsky

CEO OF ROSOBORONEXPORT JSC  
Alexander Alexandrovich Mikheev

DEPUTY CEO OF THE ROSTEC STATE CORPORATION FOR INVESTMENT ACTIVITIES  
Dmitry Yurievich Lelikov

CHAIRMAN OF THE BOARD OF DIRECTORS OF AVTOVAZ PJSC  
Sergey Viktorovich Skvortsov

DIRECTOR FOR ECONOMIC AND FINANCIAL AFFAIRS OF THE ROSTEC STATE CORPORATION  
Kirill Valerievich Fyodorov

PRESIDENT OF THE REPUBLIC OF TATARSTAN  
Rustam Nurgalievich Minnikhanov

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Anatoly Eduardovich Serdyukov

DIRECTOR FOR LEGAL SUPPORT AND CORPORATE GOVERNANCE OF THE ROSTEC STATE CORPORATION  
Alla Sergeevna Laletina

DIRECTOR, MEMBER OF THE MANAGEMENT BOARD OF RDIF MC JSC  
Alexander Leonidovich Chistyakov

ACTING DIRECTOR OF THE INSTITUTE OF STATE AND LAW, RUSSIAN ACADEMY OF SCIENCES  
Alexander Nikolaevich Savenkov





## Radio-Electronic Technologies Concern JSC

*Radio-Electronic Technologies Concern JSC (KRET JSC) combines 76 enterprise involved in the development and production of military and civilian electronic products*

The group's enterprises are located across Russia, employing about 50,000 people.

Today, KRET JSC produces a wide range of products of the following categories:

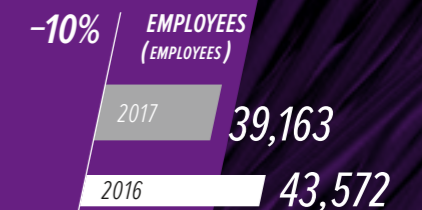
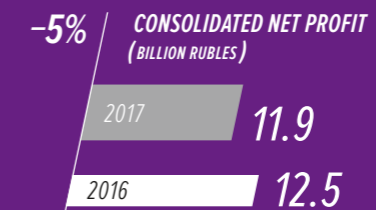
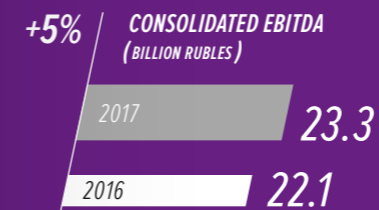
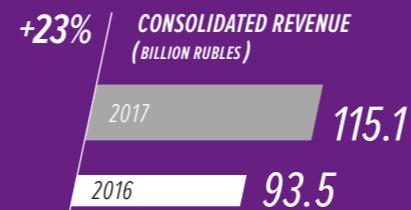
- airborne electronics systems and units;
- electronic warfare and intelligence devices;
- radars;
- friend-or-foe identification systems and devices;
- measuring instruments for various application spheres

In terms of market share, KRET JSC has about 40% of the market for military avionics and airborne

systems and about 60% in the segment of military and transport helicopters.

### KEY ACHIEVEMENTS AND EVENTS IN 2017

- Joint state tests of MiG-35C/35UB and MiG-SMT/UB aircraft, and the Ka-27M helicopter were completed.
- Su-30SM multirole fighters were put into service by the Russian Aerospace Force.
- First test samples of equipment were produced for Il-78M-90A, Il-112V, 45.03M devices, along with airborne packages for the Su-35S advanced attack multirole fighter.
- Ground and flight tests were completed for the Russian-made systems to be installed to the MS-21 aircraft.



### BOARD OF DIRECTORS



CEO

Nikolay Alexandrovich Kolesov



CHAIRMAN OF THE BOARD OF DIRECTORS

Alexey Vladislavovich Aleshin

DIRECTOR OF THE FEDERAL ENVIRONMENTAL, INDUSTRIAL AND NUCLEAR SUPERVISION SERVICE  
Alexey Vladislavovich Aleshin

INDUSTRIAL DIRECTOR OF THE AVIATION CLUSTER OF THE ROSTEC STATE CORPORATION  
Anatoly Eduardovich Serdyukov

CEO OF KRET JSC  
Nikolay Alexandrovich Kolesov

CHAIRMAN OF THE SCIENTIFIC AND TECHNICAL COUNCIL OF THE ROSTEC STATE CORPORATION  
Yury Nikolaevich Koptev

DIRECTOR FOR LEGAL SUPPORT AND CORPORATE GOVERNANCE OF THE ROSTEC STATE CORPORATION  
Alla Sergeevna Laletina

DIRECTOR OF THE DEPARTMENT FOR ECONOMIC AND FINANCIAL AFFAIRS OF THE ROSTEC STATE CORPORATION  
Kirill Valerievich Fyodorov

DIRECTOR OF THE DEPARTMENT FOR RADIO-ELECTRONIC INDUSTRY OF THE MINISTRY OF INDUSTRY AND TRADE OF THE RUSSIAN FEDERATION  
Sergey Vladimirovich Khokhlov

- Work was completed for introducing new and upgraded standard avionics equipment for Il-96-300/400M, Tu-214, Il-114-300 aircraft; development and certification of airborne systems for Il-96-300/400, Tu-204/214, MS-21, SSJ-100 aircraft was carried out as part of the import phase-out initiatives.

- 62 R&D jobs conducted for the development of military airborne systems.

- The holding company was named a potential supplier of equipment for the joint Russian-Chinese LRWBA project.

### GROWTH DIRECTIONS

- A promising field of the group's activities is a significant increase in the production of electrical connectors and cables for military purposes, as well as an extension of the non-defence products' range, with the purpose of entering the global market of suppliers of plug-and-socket connectors for the largest international companies, including Airbus.

- Elaboration of time plans for work with 30 aviation equipment units, with the goal of maximum utilisation of the Russian electronic components base, including the base being developed as part of the import phase-out programmes.





# Technodinamika JSC

*Technodinamika JSC is the leading Russian developer and manufacturer of equipment for aircraft*



An-148, Tu-154, Il-96, Yak-42, as well as transport aircraft such as Il-76, An-124, Be-200 and Tu-204S, and helicopters Mi-8/17, Ka-27/29/31, Ka-26, Mi-26, Mi-34, Ka-226, Ansat and Mi-38.

The holding has 23% of the Russian systems engineering market.

### KEY ACHIEVEMENTS AND EVENTS IN 2017

- A programme for import phase-out has been completed with regard to 13 components for arms, military and special aviation equipment that had been previously manufactured in Ukraine.
- For 2018, projects implemented under the federal targeted programme No. 1 have been commissioned ahead of schedule.
- Several enterprises with competences in the field of development, production and after-sales maintenance of parachute systems, auxiliary power units, brakes and wheels, units of hydro-systems and fuel systems, units of power supply and flight control systems joined the holding company.
- A Russian-made aviation components demonstration centre was opened.

The holding company includes 47 Russian plants and research institutes of the aviation and space industries.

The holding company specialises in the development and output of units, assemblies and systems in the following core fields:

- engine control units and systems;
- life support systems and search-and-rescue systems;
- control systems and actuating devices;
- hydro-systems and fuel systems;
- power supply systems and switching equipment;
- auxiliary power units;
- utility and housekeeping equipment for airports;
- lighting gear.

The holding company's products are installed on all Russian-made airliners, including Tu-204/214, Il-114,

### BOARD OF DIRECTORS



CEO

Igor Georgievich Nasenkov



CHAIRMAN OF THE BOARD OF DIRECTORS

Anatoly Eduardovich Serdyukov

INDUSTRIAL DIRECTOR OF THE AVIATION CLUSTER OF THE ROSTEC STATE CORPORATION  
Anatoly Eduardovich Serdyukov

DEPUTY MINISTER OF INDUSTRY AND TRADE OF THE RUSSIAN FEDERATION  
Oleg Evgenyevich Bocharov

EXECUTIVE DIRECTOR OF THE ROSTEC STATE CORPORATION  
Oleg Nikolaevich Evtushenko

CEO OF TECHNODINAMIKA JSC  
Igor Georgievich Nasenkov

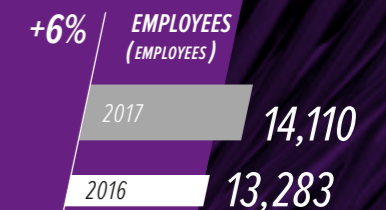
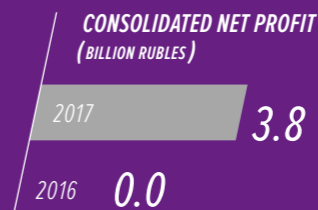
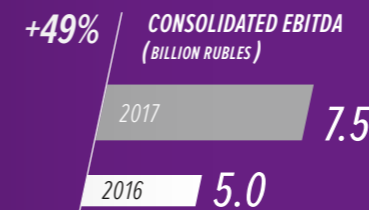
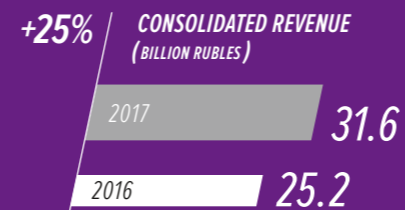
DIRECTOR OF THE LITIGATION AND LEGAL FUNCTION OF THE ROSTEC STATE CORPORATION  
Zhanna Nikolaevna Skorina

DIRECTOR FOR IMPLEMENTATION OF THE STATE PROGRAMMES AT THE ROSTEC STATE CORPORATION  
Ivan Alexandrovich Skrylnik

DIRECTOR FOR ECONOMIC AND FINANCIAL AFFAIRS OF THE ROSTEC STATE CORPORATION  
Kirill Valerievich Fyodorov

### GROWTH DIRECTIONS

- Development of integrator competences in 15 systems by 2020.
- Increasing the share of the holding company's products installed on aircraft and engines manufactured by Russian Helicopters JSC, UAC PJSC and UEC JSC by selling R&D projects.
- Implementation of the MS-21 integrated project and development of a network of service centres in Russia and abroad.
- Introduction of PDM (Product Data Management) systems into the holding company's structure would create a single information structure among all enterprises of the holding company so as to enable end-to-end work of not only the holding company's enterprises, but also the entire aviation cluster.
- Connection of all test benches into a single information networks.
- Replacement of expensive full-scale tests by digital models for acceleration of the entire production process and reduction of costs.





## 3.4.2 *Arms, Ammunition and Special Chemistry Cluster*





## JSC Scientific Industrial Concern Tecmash

JSC Scientific Industrial Concern Tecmash specializes in the development and serial supply of ammunition to provide combat capabilities of the main shock groups of the Russian Armed Forces



- domestic and medical refrigerating equipment;
- a wide range of equipment for industry, as well as fast moving consumer goods.

### KEY ACHIEVEMENTS AND EVENTS IN 2017

- Output of medical devices has been launched at the facilities of KMZ JSC as per the instructions of the President of the Russian Federation for production of non-defence products by the defence industry sector's enterprises.
- More than 10,700 rocket projectiles of all calibres were supplied under commercial supplies as per a 2017 state defence order.
- Supplies under the state defence orders were increased on average by 78%, and more than by 8 times for individual items (e.g., Solntsepek unguided missile system).
- Equipment has been transferred and specialists have been trained for the licensed production of artillery tank ammunition in India. This is the most significant project of the holding company for the transfer of licenses for production of its ammunition in other countries.

JSC Scientific Industrial Concern Tecmash was established by the Rostec State Corporation in 2011. Today, the holding company includes 36 organisations of the ammunition industry. JSC Scientific Industrial Concern Tecmash develops and produces the following products:

- multiple-launch rocket systems;
- ammunition for ground-, sea- and air-based small-calibre artillery;
- engineer ammunition;
- air bomb weapons;
- grenade launcher rounds;
- close combat weapons;
- artillery rounds for ground- and sea-based artillery;
- detonating devices and other military products.

The main product segments of the holding company in the non-defence sector are:

- equipment for companies of the fuel and energy industry;
- agricultural machinery;

### BOARD OF DIRECTORS



CEO

Vladimir Nikolaevich Lepin



CHAIRMAN OF THE BOARD OF DIRECTORS

Sergey Borisovich Abramov

INDUSTRIAL DIRECTOR FOR THE ARMS, AMMUNITION AND SPECIAL CHEMISTRY OF THE ROSTEC STATE CORPORATION  
Sergey Borisovich Abramov

CHAIRMAN OF THE SCIENTIFIC AND TECHNICAL COUNCIL OF THE ROSTEC STATE CORPORATION, MEMBER OF THE MANAGEMENT BOARD  
Yury Nikolaevich Koptev

DEPUTY DIRECTOR OF THE INTER-AGENCY CENTRE FOR ANALYTICAL STUDIES OF THE RUSSIAN ACADEMY OF SCIENCES FOR SCIENTIFIC WORK  
Alexander Veniaminovich Kulikov

DIRECTOR FOR LEGAL SUPPORT AND CORPORATE GOVERNANCE OF THE ROSTEC STATE CORPORATION  
Alla Sergeevna Laletina

GENERAL DIRECTOR OF JSC SCIENTIFIC INDUSTRIAL CONCERN TECMASH, GENERAL DIRECTOR OF SPLAV NPO JSC  
Vladimir Nikolaevich Lepin

DIRECTOR FOR IMPLEMENTATION OF THE STATE PROGRAMMES AT THE ROSTEC STATE CORPORATION  
Ivan Alexandrovich Skrylnik

DIRECTOR FOR ECONOMIC AND FINANCIAL AFFAIRS OF THE ROSTEC STATE CORPORATION  
Kirill Valerievich Fyodorov

- New production has been launched at the facilities of Research Institute of Electronic Devices JSC as part of the Smart City programme. A new electrodeposited coatings production area has also been launched at the enterprise.

### GROWTH DIRECTIONS

- Implementation of the Neva Technologies projects developed at the Karl Liebknecht Leningrad Mechanical Plant.
- Launch of production of single-use medical devices at Pribor Scientific Production Association JSC. The project includes the production of spreaders, containers for biomaterials and diagnostics tools for gynaecology made of high-quality polystyrene comparable to similar products of foreign producers.
- Restructuring and process upgrade to bring the scientific and production base of the industry sector into compliance with the advanced requirements of the Armed Forces of the Russian Federation and military-technical cooperation.
- Support and improvement of the required package of foundational technologies to ensure military and technical independence of the country across the entire cycle of primary ammunition manufacturing.



-5% CONSOLIDATED REVENUE (BILLION RUBLES)

2017 82.4

2016 86.9

-6% CONSOLIDATED EBITDA (BILLION RUBLES)

2017 16.7

2016 17.8

-15% CONSOLIDATED NET PROFIT (BILLION RUBLES)

2017 9.4

2016 11.0

+1% EMPLOYEES (EMPLOYEES)

2017 45,532

2016 45,226





## Kalashnikov Concern JSC

*Concern Kalashnikov JSC is the largest manufacturer of combat, duty and civilian small arms, high precision ammunition for artillery arms, as well as engineering means for guaranteed operation and repair of missiles and artillery and combat vehicles*

### DESCRIPTION OF COMPANY

The Concern specialises in the development, production and disposal of arms. Today, Concern Kalashnikov JSC has two business lines:

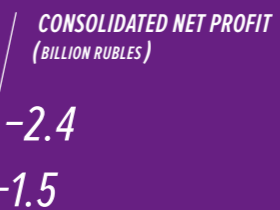
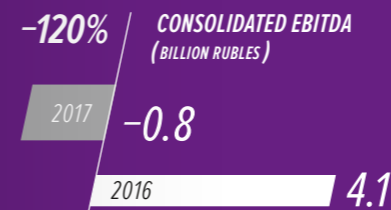
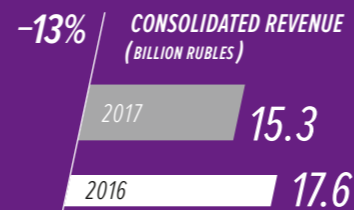
- arms (combat, duty and civilian small arms, grenade-launcher attachments);
- special equipment (high precision arms (devices, units and assemblies), maintenance and repair means).

The Concern is the flagship of the national shooting weapons sector with a share of about 95% of

the shooting weapons market of Russia. Products of Kalashnikov Concern JSC are supplied to more than 27 countries.

### KEY ACHIEVEMENTS AND EVENTS IN 2017

- A long-term investment programme was approved and launched for the development of investment activities for the purchase and consolidation by the Concern of successful and advanced Russian defence industry sector's enterprises.



### BOARD OF DIRECTORS



CEO

Aleksey Yurievich Krivoruchko



CHAIRMAN OF THE BOARD OF DIRECTORS

Sergey Borisovich Abramov

- The Concern purchased Mytitschi Machine-Building Plant OJSC.
- A 26% shareholding interest minus one share in Kalashnikov Concern JSC was sold to a private investor, TransKomplekt-Holding LLC. As a result of the deal, the private investor consolidated 75% minus one share, and the Corporation reserved the blocking minority interest of 25% plus one share.
- A long-term borrowing programme has been developed for the diversification of financing sources and reduction of borrowing costs. As a part of the programme, the holding company carried out an initial offering of exchange bonds worth 3 billion rubles.

### GROWTH DIRECTIONS

- Further development of existing business lines and entry into new product segments.
- Development of new technologies, including the acquisition of know-how in fields such as: robotic systems, motor vehicles and neural network-based products.
- Mastering production and improvement of sales of everyday commodities and accessories, development of non-arms ranges of civilian non-licensable products.

INDUSTRIAL DIRECTOR FOR THE ARMS, AMMUNITION AND SPECIAL CHEMISTRY OF THE ROSTEC STATE CORPORATION  
Sergey Borisovich Abramov

DEPUTY CEO FOR CORPORATE AND STRATEGIC DEVELOPMENT OF KALASHNIKOV CONCERN JSC  
Maria Gennadievna Akoeva

PRESIDENT OF TRANSMASHHOLDING CJSC  
Andrey Removich Bokarev

CEO OF KALASHNIKOV CONCERN JSC  
Aleksey Yurievich Krivoruchko

DIRECTOR FOR LEGAL SUPPORT AND CORPORATE GOVERNANCE OF THE ROSTEC STATE CORPORATION  
Alla Sergeevna Laletina

DEPUTY CEO OF THE ROSTEC STATE CORPORATION  
Alexander Yurievich Nazarov

DEPUTY CEO OF ROSOBORONEXPORT JSC  
Igor Olegovich Sevastyanov

DIRECTOR FOR ECONOMIC AND FINANCIAL AFFAIRS OF THE ROSTEC STATE CORPORATION  
Kirill Valerievich Fyodorov

FIRST DEPUTY CHAIRMAN OF THE BANK FOR DEVELOPMENT AND FOREIGN ECONOMIC AFFAIRS (VNESHECONOMBANK) STATE CORPORATION  
Nikolay Viktorovich Tsekhomsky





## RT-Chemcomposite JSC

*RT-Chemcomposite JSC is an advanced innovative holding company specialising in chemistry and composite materials. It is a leader in the Russian market for technologically advanced products made of composite polymer materials (CPM)*



The holding company combines strategic enterprises and scientific centres for research and development, production and sale of CPM products, structural optics, special ceramics, chemical products, special fibres and green chemistry products.

### KEY ACHIEVEMENTS AND EVENTS IN 2017

- The first T-500 aircraft for aerial chemical processing was built at the facilities of Technologiya Obninsk Research and Production Enterprise named after A.G. Romashin JSC and participated in the flight show at MAKS-2017.

### BOARD OF DIRECTORS



CEO

Kirill Yulyevich Shubsky



CHAIRMAN OF THE BOARD OF DIRECTORS

Alexey Alexeevich Kuzmitsky

ADVISER TO CEO OF THE ROSTEC STATE CORPORATION  
Alexey Alexeevich Kuzmitsky

TREASURY DIRECTOR OF THE ROSTEC STATE CORPORATION  
Irina Valerievna Migal

INDUSTRIAL DIRECTOR FOR THE ARMS, AMMUNITION AND SPECIAL CHEMISTRY OF THE ROSTEC STATE CORPORATION  
Sergey Borisovich Abramov

DEPUTY DIRECTOR OF THE INTER-AGENCY CENTRE FOR ANALYTICAL STUDIES OF THE RUSSIAN ACADEMY OF SCIENCES FOR SCIENTIFIC WORK  
Alexander Veniaminovich Kulikov

DIRECTOR FOR LEGAL SUPPORT TO INTERNATIONAL AND INVESTMENT ACTIVITIES OF THE ROSTEC STATE CORPORATION  
Andrey Alexandrovich Smotrisky

DEPUTY CEO OF PREPREG-ACM JSC  
Larisa Vladimirovna Chursova

CEO OF RT-CHEMCOMPOSITE JSC  
Kirill Yulyevich Shubsky

- The first technologically-advanced glazing of Russian-made polycarbonate was produced for the Kometa 120M next-generation hydrofoil sea passenger ship.
- Composite elements for the landing module and the surface platform have been manufactured for delivery of the rover vehicle to Mars in 2020 as part of the ExoMars international space programme.
- Test production of a unique development, ACRIMIDE® foam plastic, has been launched for multi-layered composite structures capable of withstanding a thermal load of up to 220°C.
- New cross-linked organic glass has been developed for aviation glazing in order to meet the current global requirements for aircraft engineering materials.
- The holding company's enterprises have introduced a unique Russian technology, Quickstep, to ensure out-of-autoclave moulding of CPM products for the aerospace industry.

- Increasing the share of civilian and dual use products in the total revenue to 60% by 2020.
- Attaining the level of the world's leading companies by operational performance of enterprises.
- Developing key product categories as part of three business lines: composites, chemistry and green chemistry and fibres.

### GROWTH DIRECTIONS

- Ensuring an average yearly revenue growth rate of 25% through 2025 by developing competences, increasing the sales on current target markets and entering new markets.

**+32%** CONSOLIDATED REVENUE (BILLION RUBLES)

2017 9.4

2016 7.1

**+48%** CONSOLIDATED EBITDA (BILLION RUBLES)

2017 1.4

2016 0.9

**-26%** CONSOLIDATED NET PROFIT (BILLION RUBLES)

2017 0.3

2016 0.4

**+1%** EMPLOYEES (EMPLOYEES)

2017 4,630

2016 4,582





## High Precision Systems NPO JSC

The holding company oversees the entire cycle of arms and military equipment production, from the concept stage to the sale of finished products



### DESCRIPTION OF COMPANY

High Precision Systems NPO JSC is a holding company specialising in high precision systems and sets of arms for the tactical combat zone, tactical missile systems for the Russian Army, as well as portable anti-aircraft and anti-tank missile systems. The holding company's enterprises are primarily involved in the development, production, upgrade, repair and sale of arms, military equipment and special vehicles.

### BOARD OF DIRECTORS



CEO

Alexander Vladimirovich Denisov



CHAIRMAN OF THE BOARD OF DIRECTORS

Sergey Borisovich Abramov

INDUSTRIAL DIRECTOR FOR THE ARMS, AMMUNITION AND SPECIAL CHEMISTRY OF THE ROSTEC STATE CORPORATION  
Sergey Borisovich Abramov

CEO OF HIGH PRECISION SYSTEMS NPO JSC  
Alexander Vladimirovich Denisov

ADVISER TO CEO OF THE ROSTEC STATE CORPORATION  
Alexander Alexeevich Kotenkov

EXECUTIVE DIRECTOR OF THE ROSTEC STATE CORPORATION  
Oleg Nikolaevich Evtushenko

CHIEF ACCOUNTANT OF THE ROSTEC STATE CORPORATION  
Natalia Vladimirovna Borisova

DIRECTOR FOR LEGAL SUPPORT AND CORPORATE GOVERNANCE OF THE ROSTEC STATE CORPORATION  
Alla Sergeevna Laletina

DEPUTY DIRECTOR FOR SCIENCE AT THE RUSSIAN FOUNDATION FOR BASIC RESEARCH  
Igor Anatolyevich Sheremet

### GROWTH DIRECTIONS

- Supply of high precision arms to the Armed Forces of the Russian Federation.
- Developing digital economy and break through technology competences.
- Involvement in large integrated projects of the Digital Economy of the Russian Federation State Programme.
- Increasing the export volumes of military products, including by means of expanding the range of products, markets and the after-sales maintenance services and upgrade of previously supplied products.
- Attaining the level of a global market leader in high precision arms for the tactical combat zone by developing new products.







## SPLAV NPO JSC

*The enterprise manufactures heavy flamethrower systems, artillery systems and armaments for soft-skin vehicles, as well as special vehicles*



### BOARD OF DIRECTORS



CEO

Vladimir Nikolaevich Lepin



CHAIRMAN OF THE BOARD OF DIRECTORS

Sergey Borisovich Abramov

*INDUSTRIAL DIRECTOR FOR THE ARMS, AMMUNITION AND SPECIAL CHEMISTRY OF THE ROSTEC STATE CORPORATION*  
Sergey Borisovich Abramov

*DIRECTOR FOR IMPLEMENTATION OF THE STATE PROGRAMMES AT THE ROSTEC STATE CORPORATION*  
Ivan Alexandrovich Skrylnik

*CEO OF SPLAV NPO JSC, CEO OF JSC SCIENTIFIC INDUSTRIAL CONCERN TECMASH*  
Vladimir Nikolaevich Lepin

*DIRECTOR FOR INVESTMENTS AND INVESTMENT PROJECTS OF THE ROSTEC STATE CORPORATION*  
Alyona Vladimirovna Povorina

*DIRECTOR OF THE SECURITY DEPARTMENT OF THE ROSTEC STATE CORPORATION*  
Dmitry Evgenyevich Kuznetsov

*DIRECTOR FOR ECONOMIC AND FINANCIAL AFFAIRS OF THE ROSTEC STATE CORPORATION*  
Kirill Valerievich Fyodorov

*DIRECTOR FOR LEGAL SUPPORT AND CORPORATE GOVERNANCE OF THE ROSTEC STATE CORPORATION*  
Alla Sergeevna Laletina

### DESCRIPTION OF COMPANY

SPLAV NPO JSC is the leading Russian developer, designer and manufacturer of multiple-launch rocket systems (MLRS) and ammunition for the Russian Army and the Navy, as well as airborne free-flight and guided air-launched missiles for the Russian Aerospace Forces.

SPLAV NPO JSC carries out the entire cycle of related works on development of technologies for the test and commercial production using the required test and special equipment and automation means.

Using advanced technologies and equipment, the holding company can solve day-to-day problems and fulfil long-term tasks.

Enterprises of SPLAV NPO JSC also manufacture non-defence products: flexible printed cables, air cooldown units, equipment for patching work and other products.

### GROWTH DIRECTIONS

- Mastering the production of brand-new Russian-made automated treatment and diagnostics systems for human life support as part of the technologies transfer. Launch of commercial production of mobile therapeutic units for the security agencies.
- Continuing the work on development of next-generation high precision multiple-launch rocket systems (MLRS) in compliance with the 2027 State Arms Programme and the Innovative Development Programme of SPLAV NPO JSC.





**ЦНИТОЧМАШ**  
Центральный научно-исследовательский  
институт точного машиностроения

## TSNIITOCHEMASH (Central Scientific-Research Institute for Precision Machine Engineering) JSC

*TSNIITOCHEMASH JSC is a multi-disciplinary centre for the research, development, testing and production of advanced arms, military and special equipment, dual-use and non-defence products*



### BOARD OF DIRECTORS



CEO

*Dmitry Yurievich Semizorov*



CHAIRMAN OF THE BOARD OF DIRECTORS

*Sergey Borisovich Abramov*

*INDUSTRIAL DIRECTOR FOR THE ARMS,  
AMMUNITION AND SPECIAL CHEMISTRY  
OF THE ROSTEC STATE CORPORATION  
Sergey Borisovich Abramov*

*ECONOMIC AND FINANCIAL AFFAIRS ANALYST  
OF THE ROSTEC STATE CORPORATION  
Vyacheslav Vladimirovich Burdin*

*THIRD CATEGORY PROJECTS MANAGER OF THE  
ARMS, AMMUNITION AND SPECIAL CHEMISTRY  
CLUSTER OF THE ROSTEC STATE CORPORATION  
Alexander Alexandrovich Zaboruyayev*

*DIRECTOR FOR CORPORATE GOVERNANCE  
AND PROPERTY MANAGEMENT OF THE ROSTEC  
STATE CORPORATION  
Alexander Sergeevich Ruban*

*CEO OF TSNITOCHMASH JSC  
Dmitry Yurievich Semizorov*

### DESCRIPTION OF COMPANY

TSNIITOCHEMASH (Central Scientific-Research Institute for Precision Machine Engineering) JSC is known for its scientific and technical activities in the development and production of most mass types of weapons and military equipment for various types of troops.

Demonstration and Test Centre for Aircraft Guns and the State Test Station (STS) for civilian and duty hand firearms and ammunition.

### KEY ACHIEVEMENTS AND EVENTS IN 2017

- 17 items of armaments, military and special-purpose equipment (AMSPE) have been put into service by the Armed Forces of the Russian Federation, including 16 elements of the Ratnik second-generation battle suits.
- The three-year state contract with the Ministry of Defence of the Russian Federation for supply of about 120,000 of the 6B52 second-generation combat gear developed by Ratnik Design Bureau was successfully completed.
- A mockup sample of advanced combat gear for the Russian Army presented at the Army-2017 international forum was included in the top-10 innovations.
- Tochnost-7.62 and Tochnost-8.6 high precision sniper systems have been put into operation by the Federal Protective Service of Russia and the National Guard of Russia.

### GROWTH DIRECTIONS

- Development of the production of dual-use and non-defence products using the scientific and technical groundwork obtained through invention of the Ratnik second-generation battle suits.
- Establishment of the Centre for Mathematical (Digital) Modelling of Development and Tests to manage the life-cycle of products and ultimately reduce the cost of development, tests, operation and repair of small-arms systems.



### 3.4.3 *Radio- Electronic Cluster*





# Ruselectronics JSC

In 2017, the Rostec State Corporation commenced the consolidation of two holding companies whose parent organisations were Russian Electronics JSC and United Instrument Manufacturing Corporation JSC

## DESCRIPTION OF COMPANY

The Ruselectronics JSC holding company includes enterprises involved in the development and production of the following categories of products:

- telecommunications and computer equipment;
- electronic materials and equipment for their products;
- microwave equipment and semiconductor devices;
- automated control systems and information systems;
- communication means and systems;
- radio-electronic warfare devices;
- robotic systems.

## KEY ACHIEVEMENTS AND EVENTS IN 2017

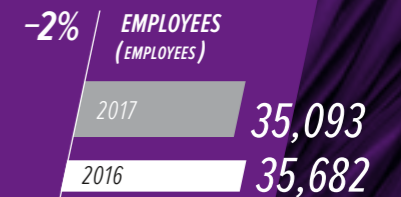
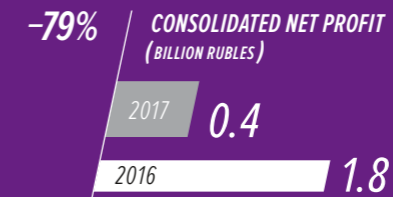
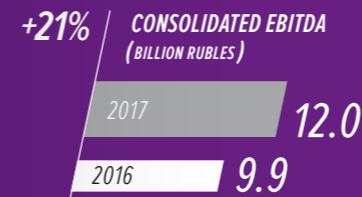
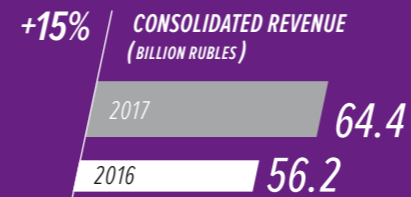
- The holding company includes five divisions by product types:
  - Automated control systems;
  - Design and manufacturing of communication means;
  - Intelligence and information systems;
  - Electronic component base;
  - Microwave electronics.
- A prototype of a mobile device responding to the movement of human eyes was designed for the development of technology for equipment eye control.
- The Solaris Case small-size jamming device that guarantees a brand new level of personal protection against radio-controlled explosive and listening devices was upgraded.

- The first computers based on the Elbrus 8S eight-core processor were presented. As compared to the previous version, Elbrus-4S, the peak performance of the eight-core processors has been increased by 3-5 times, and the bandwidth of input/output channels by 8 times.
- The first flight of the A-100 airborne radar surveillance and homing system was successfully completed. The system is capable of quickly identifying and tracking airborne and other targets and helps to direct the aircraft when attacking and striking airborne, ground-based and sea targets.

## GROWTH DIRECTIONS

- Development of initiatives for a whole series of advanced fields of neural technology and artificial intelligence, distributed ledger systems (blockchain), industrial internet, robotics and sensors and wireless communication as part of the Digital Economy programme.
- Implementation of the project of Pulsar State Plant JSC for the production of electronic components for backbone network equipment for the purpose of creating cruise control, security systems and unmanned motor vehicles, as well as wireless 5G broadband communication.

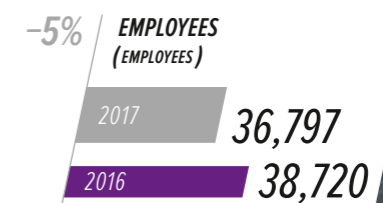
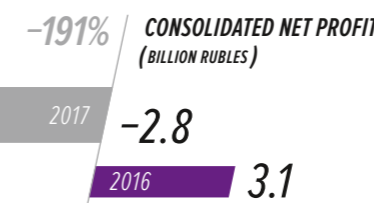
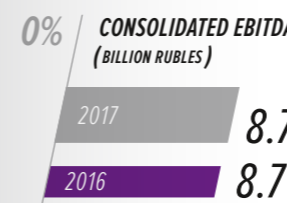
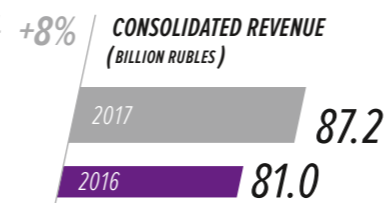
### FINANCIAL PERFORMANCE OF RUSELECTRONICS JSC



## UNITED INSTRUMENT MANUFACTURING CORPORATION JSC

- The developer and manufacturer of communications systems and means, automated control systems, radio-electronic warfare devices, robotics systems, telecommunications and computing equipment.
- The holding company includes more than 60 scientific research organisations and enterprises.
- Primary projects of United Instrument Manufacturing Corporation JSC include: development of sixth-generation army communication links, automated systems for the control of tactical military units, advanced airborne and seaborne communication systems for the aviation and the navy, as well as development of advanced surveillance and monitoring radar systems for various application spheres, including the A-50U and A-100 airborne early warning systems.

### FINANCIAL PERFORMANCE OF UIMC JSC



\* The growth of the net profit of Ruselectronics JSC in 2017 was affected by the creation of reserves for bad debts, contingent liabilities (penalties and claims), depreciation of financial investments, reduction of cost of tangible assets and other reserves.

## BOARD OF DIRECTORS



CHAIRMAN OF THE BOARD OF DIRECTORS

Sergey Alexandrovich Kulikov

- Implementation of the project of Pulsar State Plant JSC for the output of transducers for car radars and machine vision systems for robotics with the purpose of creating motor vehicles control systems using domestically manufactured equipment.
- Implementation of the project of Sozvezdie Concern JSC for the development of the System for Smart Production Control Based on the Technology for Enterprise Modelling and Digitalization, designed to increase the efficiency and reduce the costs of shifting to a digital enterprise management model.
- Implementation of the Virtual Reality Designer project of Engineering and Marketing Centre of Vega Corporation JSC to create a software platform capable of integrating various devices: movement tracking, virtual reality glasses, virtual reality object libraries for product development by companies and individuals.

CHAIRMAN OF THE BOARD OF DIRECTORS, INDUSTRIAL DIRECTOR OF THE RADIO-ELECTRONIC CLUSTER OF THE ROSTEC STATE CORPORATION  
Sergey Alexandrovich Kulikov

DEPUTY MINISTER OF INDUSTRY AND TRADE OF THE RUSSIAN FEDERATION  
Oleg Evgenyevich Bocharov

DIRECTOR FOR ECONOMIC AND FINANCIAL AFFAIRS OF THE ROSTEC STATE CORPORATION  
Kirill Valeriyevich Fyodorov

DIRECTOR FOR CORPORATE GOVERNANCE AND PROPERTY MANAGEMENT OF THE ROSTEC STATE CORPORATION  
Alexander Sergeevich Ruban

CHIEF AUTOMATED CONTROL AND COMMUNICATIONS SYSTEMS DESIGNER OF THE RUSSIAN ARMED FORCES  
Grigory Iosifovich Elkin

CHAIRMAN OF THE SCIENTIFIC AND TECHNICAL COUNCIL OF THE ROSTEC STATE CORPORATION  
Yury Nikolaevich Koptev

EXECUTIVE DIRECTOR OF THE ROSTEC STATE CORPORATION  
Oleg Nikolaevich Evtushenko





## Shvabe JSC

*Shvabe JSC is a holding company uniting the primary scientific, production and service and sales enterprises of the electro-optical industry of Russia*

### DESCRIPTION OF COMPANY

The holding company's enterprises carry out entire lifecycles of products of new electro-optical and laser equipment for national defence and security purposes, as well as for most civilian sectors of industry. The main fields of work of Shvabe JSC are the development and commercial production of:

- innovative electro-optical, laser systems and units for almost all types and kinds for the Russian Armed Forces and other security agencies;
- medical equipment for diagnostics, cardiology, ophthalmology and neonatology;
- optical materials and devices made of optical materials;
- general-industry geodetic, optical and control instrumentation;
- lighting devices and systems.

Enterprises of Shvabe JSC meet up to 70% of the domestic market's needs for special-purpose and dual-use electro-optical systems, and up to 25% of the needs for optical materials.

### KEY ACHIEVEMENTS AND EVENTS IN 2017

- Urals Optical-Mechanical Plant Production Association named after E. S. Yalamov JSC (UOMP PA JSC) delivered its first supply of neonatal equipment to Ecuador.
- An oversized lens manufactured by Lytkarino Optical Glass Plant JSC was installed at the Brazilian observatory Pico dos Dias.
- The flexible production of next-generation instruments based on three-dimensional laser treatment was launched at Novosibirsk Instrument-Building Plant JSC, and the PT8 heat vision sight with automatic calculation of ballistics and smallest sizes was developed.
- Test samples of cooled double-spectral photodetectors for air-to-air missiles were produced and supplied to the customer.

- Shvabe-Moscow implemented major non-defence product projects: bridge lighting in Moscow and integrated equipment of perinatal centres in several regions of the country.
- Shvabe Tech Lab JSC manufactured a test sample of a module TV range-finder based on the Russian-made components for the Parus-98 multi-purpose periscope system.
- Zverev Krasnogorsk Plant PJSC supplied the first batch of AGAT-MDT for the T-90 tank.
- Several batches of diffractive gratings manufactured by State Institute for Applied Optics Scientific Production Association JSC were delivered to Norway, Slovakia and Ireland.
- An upgrade of the mirror of the largest Eurasian BTA telescope located in Karachay-Cherkessia was completed.
- Production facilities of Urals Optical-Mechanical Plant Production Association JSC launched the commercial production of 10 new Genesis survey instruments.

### BOARD OF DIRECTORS



CEO

Alexey Pavlovich Patrikeev



CHAIRMAN OF THE BOARD OF DIRECTORS

Ilya Iosifovich Klebanov

- Two navigation systems were installed in Yekaterinburg for football fans for the 2018 FIFA World Cup.
- Work was completed for an upgrade of thermal imaging channels for all basic types of AMSPE using domestic-made photodetectors.

### GROWTH DIRECTIONS

- Participation in implementation of three integrated projects of the radio-electronic cluster jointly with other holding companies of the Rostec State Corporation.
- Centralisation of marketing efforts and sales on the cluster level by 2020.
- Launch of digital production, including introduction of PDM-/ERP-/PLM-systems at the holding company's enterprises.
- Breakthrough growth of the civil instrument manufacturing sector through the scientific and production groundwork and transfer of technologies.

MEMBER OF THE BOARD OF DIRECTORS OF SOVCOMFLOT PJSC  
Ilya Iosifovich Klebanov

CEO OF SHVABE JSC  
Alexey Pavlovich Patrikeev

INDUSTRIAL DIRECTOR OF THE RADIO-ELECTRONIC CLUSTER OF THE ROSTEC STATE CORPORATION  
Sergey Alexandrovich Kulikov

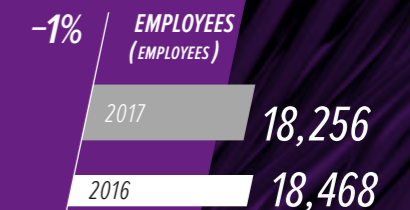
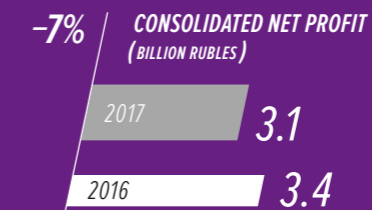
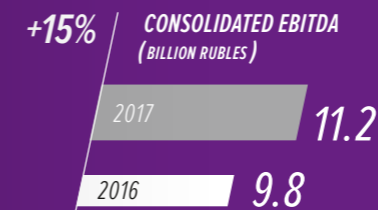
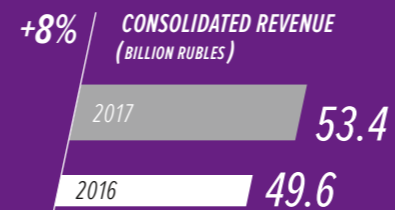
DIRECTOR FOR STRATEGIC RESEARCH OF THE ROSTEC STATE CORPORATION  
Maxim Vitalyevich Grushkin

DIRECTOR FOR CORPORATE GOVERNANCE AND PROPERTY MANAGEMENT OF THE ROSTEC STATE CORPORATION  
Alexander Sergeevich Ruban

DIRECTOR OF THE ORGANISATIONAL DEVELOPMENT DEPARTMENT OF THE CORPORATION  
Anna Nikolaevna Sharipova

DIRECTOR FOR ECONOMIC AND FINANCIAL AFFAIRS OF THE ROSTEC STATE CORPORATION  
Kirill Valerievich Fyodorov

- Implementation of investment projects in such fields as: laser and electro-optical systems, optical materials, medical equipment and vehicles, lighting equipment, biophotonics for various applications, energy saving techniques, information and telecommunications systems and advanced types of equipment for civilian sectors.







# Avtomatika Concern JSC

Avtomatika Concern JSC specialises in the field of information security

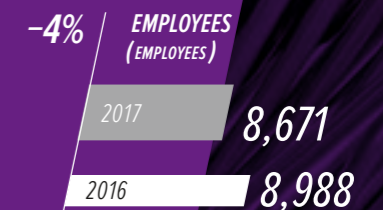
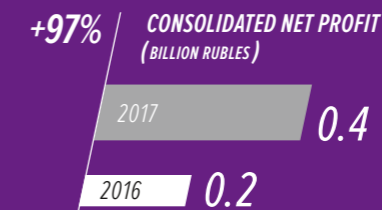
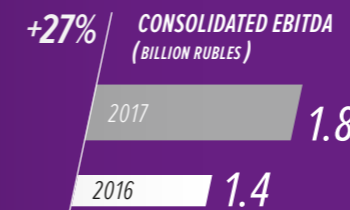
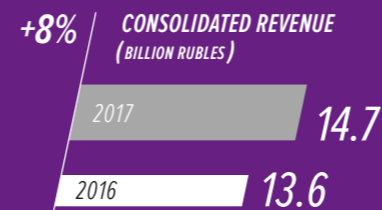


### DESCRIPTION OF COMPANY

Avtomatika Concern JSC specialises in the field of information security, developing and producing technical means and systems of protected communication, protected information and telecommunications systems, as well as special-purposes automated control systems. The holding company has great scientific potential, with more than 70 doctors and candidates of science working at its enterprises.

Enterprises of Avtomatika Concern JSC develop and produce such products as:

- encryption and cryptographic information security devices;
- systems for protected video conference calls and institutional Internet;
- equipment and systems to protect against cyber-attacks;
- equipment for the automation of electoral processes, fiscal memory devices and satellites;
- systemic solutions for infrastructure security and monitoring;
- systemic solutions for the Safe City, Smart City and Internet of Things.
- protected automated telephone stations and communication devices;



### BOARD OF DIRECTORS



CEO

Sergey Stepanovich Sakhnenko



CHAIRMAN OF THE BOARD OF DIRECTORS

Sergey Alexandrovich Kulikov

### KEY ACHIEVEMENTS AND EVENTS IN 2017

- Establishment of the Russian Encryption and Cyber Security Competence Centre commenced at the facilities of Avtomatika Concern JSC.
- Non-defence products Promotion Competence Centre was established for the purposes of entering the new technologically advanced markets and significantly increasing non-defence products' sales volumes. As a result, at the end of 2017 the holding company exceeded the target revenue from the sales of non-defence products by 70% and exceeded the numbers of 2016 by 2.2 times.
- A project for the development of the Smart City hardware and software system was launched in the Irkutsk Region.
- New technology solutions were deployed to improve the quality of products and their competitiveness.

### GROWTH DIRECTIONS

- Increasing the investments to develop technologically advanced dual-use products to enter new non-defence product markets.
- Establishment of partnerships and joint ventures with the leading producers of cryptographic protection and encryption means, as well as telecommunications equipment.

- Development of competences, and research work in the quantum technology field at the Quantum Technology Competence Centre established jointly with the Lomonosov Moscow State University.
- Performance improvement for basic business processes and deployment of the quality management system at the holding company's enterprises.

INDUSTRIAL DIRECTOR OF THE RADIO-ELECTRONIC CLUSTER OF THE ROSTEC STATE CORPORATION  
Sergey Alexandrovich Kulikov

DEPUTY CEO OF THE ROSTEC STATE CORPORATION  
Nikolay Anatolyevich Volobuyev

CEO OF AVTOMATIKA CONCERN JSC  
Sergey Stepanovich Sakhnenko

Alexander Vladimirovich Starovoytov

CEO OF VOENTELECOM OJSC  
Alexander Evgenyevich Davydov

DIRECTOR FOR ECONOMIC AND FINANCIAL AFFAIRS OF THE ROSTEC STATE CORPORATION  
Kirill Valerievich Fyodorov

DIRECTOR FOR LEGAL SUPPORT TO INTERNATIONAL AND INVESTMENT ACTIVITIES OF THE ROSTEC STATE CORPORATION  
Andrey Alexandrovich Smotrisky





## Electronica Central Research Institute JSC

*Electronica Central Research Institute JSC is an information analysis centre of the Russian radio-electronic industry that coordinates the work of enterprises involved in economic, scientific policy and international cooperation*

Electronica Central Research Institute JSC is the main developer of the 2030 Radio-Electronic Industry Development Strategy of the Russian Federation, the 2025 Electronic and Radio-Electronic Industry Development State Programme and other documents governing the fields of development of the Russian radio-electronic industry.

One of the major projects implemented by the company is the Information Analysis System (IAS) of the Rostec State Corporation. The business accelerator established at the institute is focused on promoting the development of innovative projects of young Russian scientists and specialists.

### KEY ACHIEVEMENTS AND EVENTS IN 2017

- 22 scientific research and R&D projects were completed, with a total financing value of over 262 million rubles.
- The holding company's client portfolio was diversified: at the end of 2017, more than 68% of revenue was formed by contracts with private customers.

As part of the task for determining the paths for development and integration of the Russian radio-electronic industry into the global market, Electronica Central Research Institute JSC collects and processes industry-specific information and statistics, analyses the technical and economic state of enterprises, and also performs marketing research.

### BOARD OF DIRECTORS



CEO

Alyona Vladimirovna Fomina



CHAIRMAN OF THE BOARD OF DIRECTORS

Alexey Vladimirovich Shchedrin

PROJECT MANAGER AT THE SUBDIVISION OF THE DIRECTOR FOR SPECIAL COMMISSIONS OF THE ROSTEC STATE CORPORATION  
Alexey Vladimirovich Shchedrin

DIRECTOR OF THE DEPARTMENT OF THE RADIO-ELECTRONIC INDUSTRY OF THE MINISTRY OF INDUSTRY AND TRADE OF THE RUSSIAN FEDERATION  
Sergey Vladimirovich Khokhlov

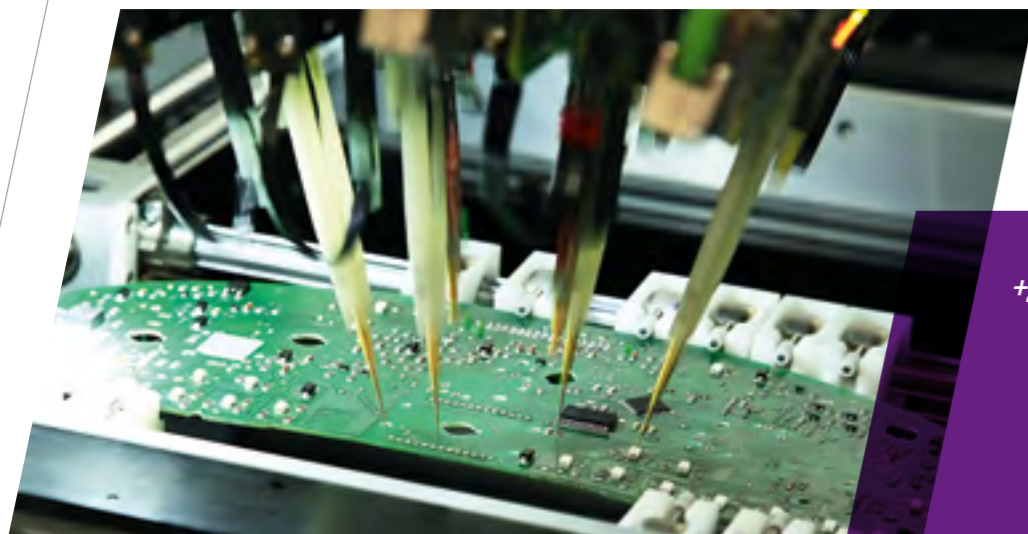
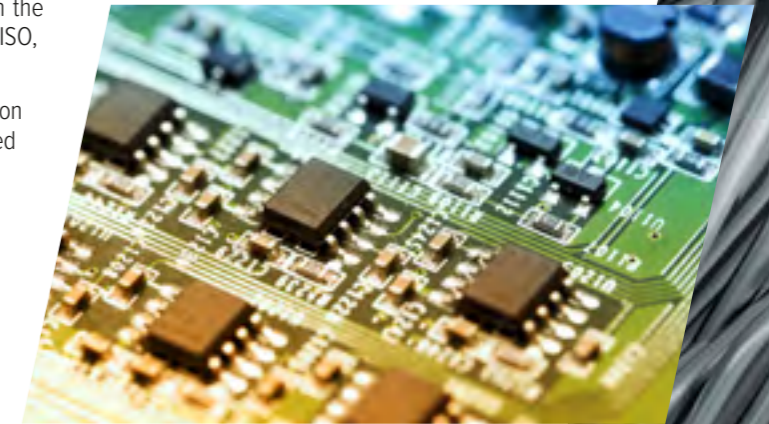
DIRECTOR FOR STRATEGIC RESEARCH OF THE ROSTEC STATE CORPORATION  
Maxim Vitalyevich Grushkin

CEO OF ELECTRONICA CENTRAL RESEARCH INSTITUTE JSC  
Alyona Vladimirovna Fomina

CEO OF AVTOMATIKA CONCERN JSC  
Sergey Stepanovich Sakhnenko

### GROWTH DIRECTIONS

- Strategic marketing and forecasting studies of the Russian and international technologically advanced markets to identify of growth points for the enterprises of the Russian radio-electronic industry.
- Events aimed at forming a pool of strategic candidates at the enterprises of the radio-electronic industry as part of the Innovative Electronics international scientific competition.
- Certification of quality management systems in the radio-electronic industry based on conformity to ISO, GOST RV, ES RD.
- Development and implementation control of the action plan under the Digital Economy programme as related to the Rostec State Corporation



+2%	CONSOLIDATED REVENUE (BILLION RUBLES)
2017	0.53
2016	0.52

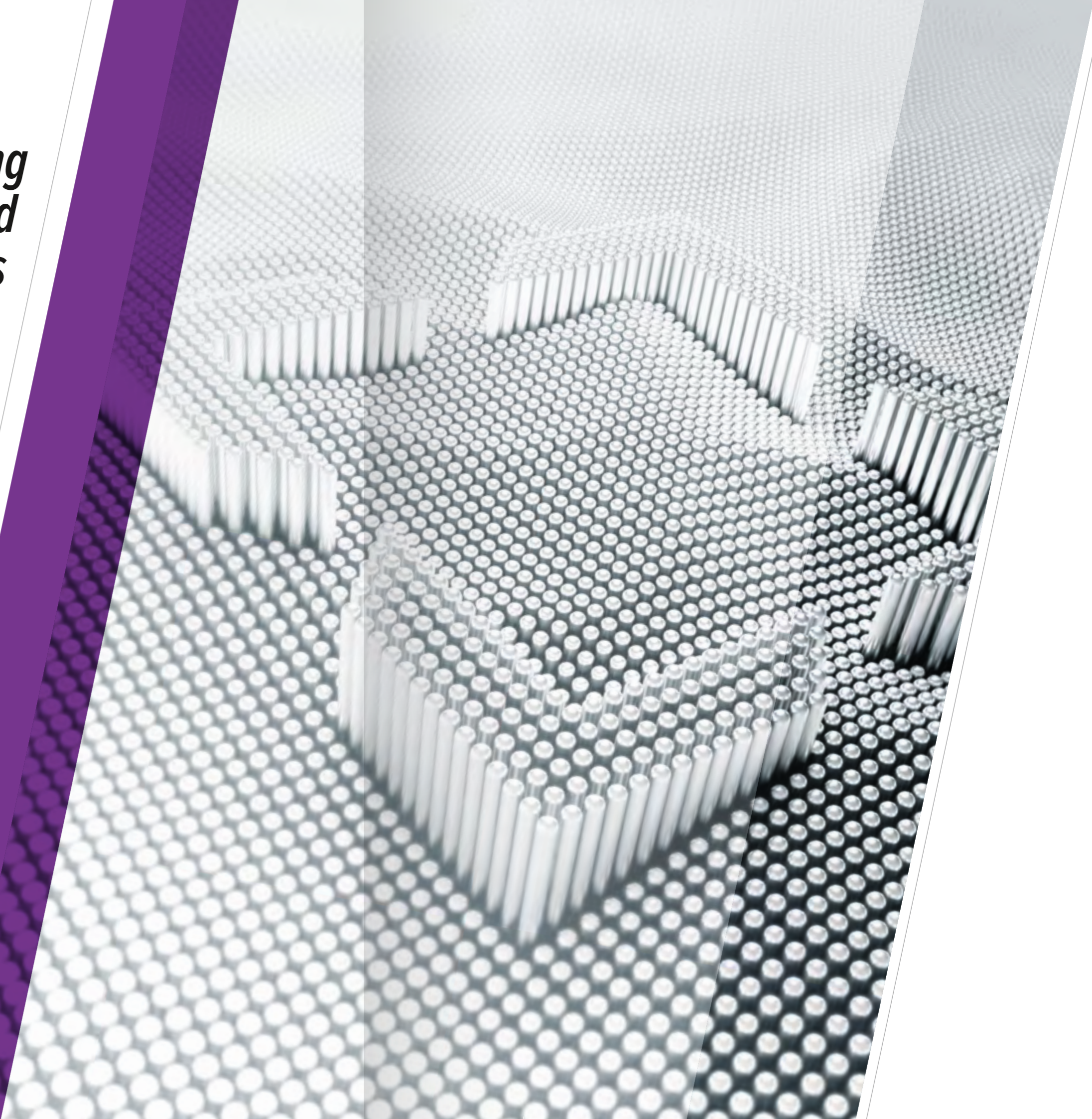
-11%	CONSOLIDATED EBITDA (BILLION RUBLES)
2017	0.13
2016	0.14

-18%	CONSOLIDATED NET PROFIT (BILLION RUBLES)
2017	0.05
2016	0.07

-10%	EMPLOYEES (EMPLOYEES)
2017	149
2016	165



3.4.4 *Key holding companies and organisations of the Rostec State Corporation outside of clusters*





### 3.4.4 Key holding companies and organisations of the Rostec State Corporation outside of clusters

#### 3.4.4.1 Holding companies outside of clusters



## Uralvagonzavod Research and Production Corporation OJSC

*Uralvagonzavod Research and Production Corporation OJSC (Uralvagonzavod RPC JSC) was established as per the Decree of the President of the Russian Federation dated 27 August 2007*

Initially, the holding company included 16 enterprises. Subsequently, it incorporated railway machinery plants, armoured vehicles repair plants and other industrial enterprises. In 2016, Uralvagonzavod RPC JSC joined the Rostec State Corporation.

The holding company's structure includes 40 enterprises, design bureaus and scientific research institutes involved in production and sale of:

- arms and military equipment;
- railway rolling stock;
- light rail systems;
- road construction and public works machinery.

- More than 15,000 freight cars of all types were manufactured and supplied, which is twice as higher as the previous year. This enabled the holding company to significantly increase its market share from 21% to 26%.

- A portfolio of orders was established, with 90% composed of innovative models of cars with increased capacity and distance run between repairs.
- Commercial production of tank containers for gases and chemicals has been launched.

#### KEY ACHIEVEMENTS AND EVENTS IN 2017

- More than 1,200 types of arms, military and special equipment were manufactured and delivered, including 70% of new and upgraded arms.

#### BOARD OF DIRECTORS



CEO

Alexander Valeryevich Potapov



CHAIRMAN OF THE BOARD OF DIRECTORS

Vladimir Vladimirovich Artyakov

#### GROWTH DIRECTIONS

- Supplies to the Armed Forces of the Russian Federation of the upgraded T-90M Proryv-3 advanced tank, BMPT tank support combat vehicles, upgraded T-80BV tank with improved combat parameters and upgraded BMP-1 infantry combat vehicle with a 30-mm weapon station began in 2018.
- Implementation of advanced developments of: DT-3PM light-duty twin crawler transporter, upgraded BMP-3 infantry combat vehicle with a 57-mm weapon station, upgraded armoured personnel carrier BTR-80 and robotic systems.
- Completion of work for the creation and launch of commercial production of three Armata units, three items of the Koalitsiya-SV cross-type artillery system, arms and equipment for Arctic teams.
- Ensuring utilisation of production capacities of at least 15,000 cars per year in 2019-2021 and implementing the programme to extend of the model range of freight cars.

CEO FIRST DEPUTY OF THE ROSTEC STATE CORPORATION  
Vladimir Vladimirovich Artyakov

INDUSTRIAL DIRECTOR FOR THE ARMS, AMMUNITION AND SPECIAL CHEMISTRY OF THE ROSTEC STATE CORPORATION  
Sergey Borisovich Abramov

DEPUTY MINISTER OF DEFENCE OF THE RUSSIAN FEDERATION  
Yuri Ivanovich Borisov

FIRST DEPUTY DIRECTOR OF THE FEDERAL SERVICE FOR MILITARY-TECHNICAL COOPERATION  
Andrey Arturovich Boytsov

DEPUTY CEO FOR INVESTMENT ACTIVITIES  
Dmitry Yurievich Lelikov

DIRECTOR FOR LEGAL SUPPORT AND CORPORATE GOVERNANCE  
Alla Sergeevna Laletina

DIRECTOR FOR ECONOMIC AND FINANCIAL AFFAIRS  
Kirill Valerievich Fyodorov

DEPUTY MINISTER OF INDUSTRY AND TRADE OF THE RUSSIAN FEDERATION  
Alexander Nikolaevich Morozov

FIRST VICE-PRESIDENT OF RUSSIAN RAILWAYS OPEN JOINT-STOCK COMPANY  
Alexander Sergeevich Misharin

CEO OF URALVAGONZAVOD RPC JSC  
Alexander Valeryevich Potapov

DIRECTOR FOR IMPLEMENTATION OF THE STATE PROGRAMMES AT THE ROSTEC STATE CORPORATION  
Ivan Alexandrovich Skrylnik

CONSOLIDATED REVENUE  
(BILLION RUBLES)

2017 153.2

CONSOLIDATED EBITDA  
(BILLION RUBLES)

2017 19.5

CONSOLIDATED NET PROFIT  
(BILLION RUBLES)

2017 -3.4

EMPLOYEES  
(EMPLOYEES)

2017 62,208





# National Immunobiological Company JSC

*The mission of National Immunobiological Company JSC is to ensure national sovereignty in the production and supply of medicines and products of medical appointment, as the lack of production within the Russian Federation is a threat to national security in healthcare*



## BOARD OF DIRECTORS



CEO

Andrey Yurievich Zagorsky



CHAIRMAN OF THE BOARD OF DIRECTORS

Vitaly Lvovich Maschitsky

PRESIDENT OF VI HOLDING GROUP, ADVISER TO CEO OF THE ROSTEC STATE CORPORATION  
Vitaly Lvovich Maschitsky

DEPUTY CEO OF THE ROSTEC STATE CORPORATION  
Alexander Yurievich Nazarov

EXECUTIVE DIRECTOR OF THE ROSTEC STATE CORPORATION  
Oleg Nikolaevich Evtushenko

DIRECTOR OF THE LITIGATION AND LEGAL FUNCTION OF THE ROSTEC STATE CORPORATION  
Zhanna Nikolaevna Skorina

DIRECTOR FOR FINANCIAL PLANNING AND SOCIAL PROGRAMMES OF THE DEPARTMENT FOR ECONOMIC AND FINANCIAL AFFAIRS OF THE ROSTEC STATE CORPORATION  
Yulia Dmitrievna Tsvetkova

DEPUTY MINISTER OF HEALTHCARE OF THE RUSSIAN FEDERATION  
Tatiana Vladimirovna Yakovleva

CEO OF NATIONAL IMMUNOBIOLOGICAL COMPANY JSC  
Andrey Yurievich Zagorsky

## KEY ACHIEVEMENTS AND EVENTS IN 2017

- The country's needs for vaccines was fully addressed as part of the National Preventive Vaccine Calendar, along with the need for blood-derived products and anti-tuberculous drugs and medical devices under the orders of the Federal Penitentiary Service of Russia.
- An agreement was signed to consolidate the pharmaceutical assets of the Rostec State Corporation and Marathon Group investment company at the facilities of National Immunobiological Company JSC. The agreement concentrates the company's efforts for the development and promotion of new Russian-made products, and initiates an integrated import phase-out project in the critical healthcare fields. This will result in the largest Russian producer and supplier of critical pharmaceutical products.
- A joint venture has been established with Ishvan Pharmaceuticals (UAE), Pharm Aid Ltd, for the nationalisation of production of new vaccines and APB drugs.
- An agreement was signed with Pharmstandard JSC and Kedrion Biopharma to create of Kirov Plasma JSC. The enterprise will develop and implement the programme for the production of blood plasma products at the Kirov plant in Russia.

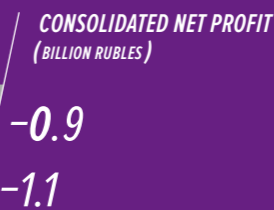
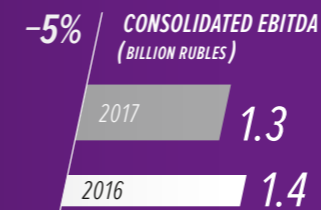
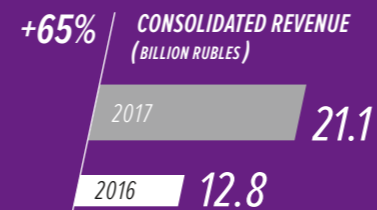
## GROWTH DIRECTIONS

- Transfer of technologies and nationalisation of the production of pharmaceutical products that are not currently made in the Russian Federation.
- Upgrade of existing production facilities.
- Ensuring uninterrupted supplies of vaccines, blood-derived products and other pharmaceutical products and medical devices to cover the needs of the country.
- Development of the products included in the holding company's portfolio.
- Promotion of advanced products of the holding company in the commercial market.

The company carries out projects for the transfer and nationalisation of technologies for the production of pharmaceutical products that are not produced in Russia and the upgrade and technical re-equipment of existing enterprises.

### PRODUCT GROUPS:

- vaccines and anatoxins;
- blood products;
- bacteriophages;
- botulinum toxins;
- probiotics;
- therapeutic and prophylactic sera;
- allergens and allergoids;
- antibiotics;
- other ready-made pharmaceutical products.







## RT-Business Development LLC

*RT-Business Development LLC implements Rostec State Corporation's strategy of increasing the commercial capitalisation of the Corporation's technologically-advanced, resource-based and related infrastructure projects*

### MAIN BUSINESS FIELDS OF RT-BUSINESS DEVELOPMENT LLC ARE:

- Direct investments: both financial and non-financial (acquisition of a shareholding interest in exchange for the right to participate in the management of affairs).
- Management of special projects of the Corporation.
- Portfolio investments, ownership and/or monitoring of the Corporation's portfolio companies.
- Acting as the internal investment adviser to the Corporation in implementing strategic tasks through investment activities in Russia and abroad.
- Professional management of assets and implementation of financial and industrial projects based on global best practices.

RT-Business Development LLC focuses the Corporation's efforts and resources on key business fields such as the materials and infrastructure sectors, as well as industrial technologies.

### KEY ACHIEVEMENTS AND EVENTS IN 2017

The largest investment project of RT-Business Development LLC being implemented include:

- Tomtor deposit of rare earth metals and niobium;
- Udokan copper deposit;
- Sukhoy Log gold deposit;
- Sugodino-Ogodzhinskoye coal field;
- Vera Port sea coal terminal;
- Pronchishevskaya oil and gas area;
- Tyrnyauz deposit;

- Scientific Production Centre (SPC) on the basis of engineering assets;
- Karachi-Lahore gas pipeline in Pakistan.

### GROWTH DIRECTIONS

- Creating the conditions for the shift of RT-Business Development LLC to the direct investment fund model in 2018.
- Final approval of the project to develop the Pronchishevskaya oil and gas area by the executive authorities of the Sakha Republic.
- Obtaining the license for the use of the resource sites for the exploration and extraction of resources at the Tyrnyauz deposit.

### BOARD OF DIRECTORS



CEO

Alexander Nikolaevich Nazarov



CHAIRMAN OF THE BOARD OF DIRECTORS

Dmitry Yurievich Lelikov

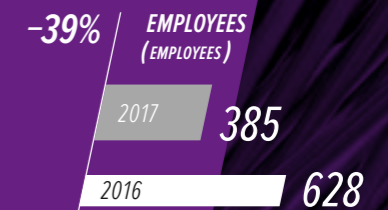
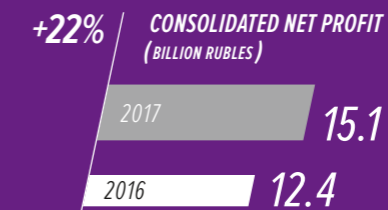
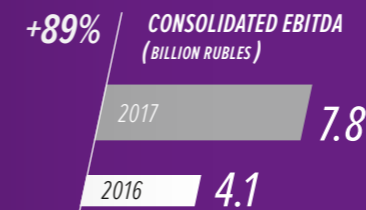
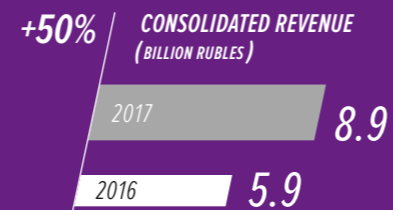
DEPUTY CEO OF THE ROSTEC STATE CORPORATION  
Dmitry Yurievich Lelikov

DIRECTOR FOR LEGAL SUPPORT AND CORPORATE GOVERNANCE  
Alla Sergeevna Laletina

CEO OF RT-Business Development LLC  
Alexander Nikolaevich Nazarov

Ekaterina Viktorovna Lapshina

DIRECTOR FOR ECONOMIC AND FINANCIAL AFFAIRS  
Kirill Valerievich Fyodorov





### 3.4.4.2 Directly controlled organisations

#### Strategic directly controlled organisations

The list of Strategic Directly Controlled Organisations has been approved by the Corporation's Management Board (minutes No. 56 dated 29 August 2017).



#### KAMAZ PJSC

CEO – *Sergey Anatolyevich Kogogin*

KAMAZ PJSC is the largest truck-building company in the Russian Federation. The company is included in the top-20 leading global heavy truck-building companies and holds position number 16 in terms of volume of output of heavy trucks with a gross weight of above 16 tons. The company's production capacities can accommodate the assembly of 71,000 vehicles per year. KAMAZ PJSC is accountable for 45% of the Russian market for heavy trucks.

The production sites of KAMAZ PJSC cover the entire truck manufacturing cycle – from the development, manufacturing and assembly of motor vehicles and their components to the sale of finished products and after-sales servicing. KAMAZ PJSC combines 84 enterprise in Russia, the CIS and non-CIS countries and employs 36,000 people.

The sales and service networks of KAMAZ PJSC cover all regions of Russia and the CIS, as well as foreign sales markets. KAMAZ PJSC continues to expand its distribution and service network in Russia and abroad. As at the end of 2017, the dealership network in Russia included 178 companies. The maintenance system is based on the principles of uniformity and maximum proximity of services to the consumer.

KAMAZ PJSC exports its vehicles, assembly kits and spare parts to more than 40 countries of the CIS, Southeast Asia,

Middle East, Africa, Eastern Europe and Latin America. At the end of 2017, the main export market of KAMAZ PJSC was Kazakhstan, accounting for about 50% of the entire volume of exported vehicles and assembly kits. Additionally, significant volumes of products are supplied to Cuba.

KAMAZ PJSC has assembly enterprises in Kazakhstan, India, Lithuania and Azerbaijan. Assembly is carried out using the assembly kits supplied by KAMAZ PJSC. Kazakhstan has implemented programmes for the nationalisation of spare parts production. Autobagi (Lithuania) assembly plant assembles Euro-6 KAMAZ trucks.

#### KEY ACHIEVEMENTS AND EVENTS IN 2017

- In 2017, more than 38,000 KAMAZ vehicles were sold, including 33,000 vehicles sold in the Russian market which is 18% higher than in 2016. 5,000 vehicles and assembly kits were exported, including 3,600 vehicles and assembly kits exported to the CIS.
- KAMAZ-5490 NEO commercial assembly was launched. Based on the accumulated experience and requests of consumers, the plant made several improvements in the vehicle's body aimed at increasing its performance and productivity.

- In 2017, NEFAZ JSC, a subsidiary of KAMAZ PJSC in Bashkortostan, assembled the first bus as part of a joint project of NEFAZ JSC and Ufa Tram and Trolleybus Plant.
- Additionally, KAMAZ PJSC became the first Russian company to have certified two truck models powered by liquefied natural gas (LNG): drop-side KAMAZ-65117-37 and semi-trailer tractor truck KAMAZ-65116-37.

products in certain countries and successfully implements such programmes in cooperation with more than 700 companies in Russia's defense industry sector.

Foreign customers are offered integrated solutions for creating nationwide defence systems for land, air and sea frontiers characterised by an optimal cost-efficiency factor.

Additionally, apart from the supplies of ready-made equipment, Rosoboronexport also offers services for licensed production in the customer's country, joint ventures for production and maintenance of equipment, as well as joint R&D work. The company also widely uses various offset schemes.

#### Rosoboronexport JSC

CEO – *Alexander Alexandrovich Mikheev*

Rosoboronexport JSC is the only Russian state intermediary approved for the export and import of the entire range of military and dual-use products, technologies and services. The company ensures implementation of large-scale projects in the field of military-technical cooperation (MTC) for purposes of improving the defensive potential of partner countries, as well as the comprehensive and innovative development of the Russian defence industry sector.

Rosoboronexport JSC oversees 85% of all exports of military and dual-use Russian-made products. The company's efficient efforts have allowed Russia to remain in second place among the world's largest arms' exporters, following only the USA.

Rosoboronexport JSC pays significant attention to arms market trends and carries out a task-oriented policy for expanding its geography, range and volume of export supplies of Russian military and dual-use products.

Based on a comprehensive analysis of interests and real needs of foreign partners, Rosoboronexport prepares targeted programmes to promote of Russian military

#### KEY ACHIEVEMENTS AND EVENTS IN 2017

- In 2017, Rosoboronexport JSC signed a series of contractual documents with customers from 50 countries of the world worth 15 billion dollars. As of 31 December 2017, the company's portfolio of orders was about 45 billion dollars, and the volume of military products supplied in 2017 was more than 13 billion dollars.
- During 2017, representatives of Rosoboronexport JSC participated in meetings of inter-governmental commissions and military-technical cooperation working groups from 48 countries.
- In 2017, Rosoboronexport JSC arranged Russian exhibitions at 16 international trade shows. In addition the company participated in 5 exhibitions of arms and military equipment in the Russian Federation.





## RT-Inform LLC

CEO – Aziz Tofikovich Bedirov

RT-Inform LLC is a single competence centre for trade and procurement activities of the Corporation's holding companies and organisations in the IT segment, focusing on the development of information security systems and other equipment, along with the acquisition, deployment and support of software for management of production enterprises and holding structures and provision of services in the IT field.

### BASIC SERVICES OF THE COMPANY INCLUDE:

- Use of the Corporation's data centre resources;
- Equipment monitoring and IT servicing;
- Provision of virtual resources;
- Networks and server infrastructure building;
- Combined communications system;
- Data backup storage;
- Mobile device management;
- Equipment maintenance.

The company also supplies telecommunications equipment, computer equipment and software and information security services.

The IT solutions developed by the company allow the automation of the collection, storage and processing of information in almost all spheres where managerial solutions are made and where compliance with such

solutions is monitored, namely source reporting documents and analytical processing of statistical data, procurement activities, budgeting, treasury management, asset management and many others.

In 2017, the company implemented a whole series of joint projects with other holding companies of the Rostec State Corporation:

- development of a video conference call system for Ruselectronics JSC capable of connecting more than 100 users concurrently;
- automation of the information control system for production processes and production equipment fleet of the Instrument Manufacturing Design Bureau named after Academician A. Shipunov, a member of High Precision Systems NPO JSC;
- creation of an electronic document workflow system for Kalugapribor JSC to reduce temporary and financial costs of document management;
- deployment of an internetwork scanning system for Ruselectronics JSC to increase the overall level of protection of the corporate information system;
- connection of the Corporation's enterprise with the Corporation's database of assets (CDA), enabling the automation of the management of property items and assets of organisation, thus ensuring ample opportunities from maintenance of the assets register to formation of an optimal investment portfolio by key performance indicators of the Corporation's enterprises;
- creation of the RT-Catalogue information analysis system – a single catalogue of IT products and the single source of reference prices for IT products used by the Corporation's enterprises.



## RT-Energy LLC

CEO – Dmitry Igorevich Gottlieb

The main objective of RT-Energy LLC is reducing the energy resource costs of the Corporation's enterprises passed on in the cost of products and, as a result, increasing their competitive capacity in national and global markets.

The company is a single centre for improving the power supply and energy efficiency at the Corporation's enterprises.

### MAIN BUSINESS FIELDS OF THE COMPANY:

- Energy utilisation research at the Corporation's enterprises;
- Assisting the Corporation's enterprises in obtaining energy performance certificates;
- Developing programmes to improve the energy efficiency of the Corporation's organisations;
- Establishing major power companies based on the energy assets of the Corporation's organisations, and managing the value of such companies;
- Pre-design feasibility studies, survey and design work for construction, repair, reconstruction and re-equipment with the purpose of upgrading energy infrastructure and energy systems facilities of the Corporation's enterprises;
- Work related to the implementation of projects for construction, reconstruction, upgrade and re-equipment of facilities of the construction, utilities and energy infrastructure of the Corporation's enterprises;
- Arranging and fulfilling technical supervision and construction control over a package of construction and installation and process works as part of projects for the reconstruction and re-equipment of the Corporation's enterprises.

## Novikombank Joint-Stock Commercial Bank JSC

Chairman of the Management Board – Elena Alexandrovna Georgieva

Since its establishment in 1993, Novikombank Joint-Stock Commercial Bank JSC has provided financial support to technologically advanced segments of the Russian economy and assistance to nationwide projects.

The bank is one of the 30 largest banks of the country and provides services in all segments of the financial market to its clients. Credits issued by machine-building companies and enterprise of the high-tech sector make up 23% of the bank's loan portfolio. Moody's international rating agency assigned a B2 rating to the bank. According to the ratings of Expert RA, the creditworthiness rating of Novikombank Joint-Stock Commercial Bank JSC is ruBB-.

The Rostec State Corporation became a shareholder of the bank in late 2011 by acquiring 17.6% of shares in the bank's authorised capital. In July 2016, the Corporation increased its share in Novikombank Joint-Stock Commercial Bank JSC to 100% as per the corporate strategy and additional capitalisation plans.



## RT-Finance JSC

CEO – Andrey Yurievich Sapelin

In 2016, a system for intra-corporate financing was created and launched on the basis of the Corporation's pool leader, RT-Finance. Since April 2016, RT-Finance JSC has attracted idle funds of the Corporation's organisations on a daily basis.

The interest rates offered by RT-Finance JSC are higher than similar rates offered by authorised banks for certain organisations, which ensures additional profitability when allocating funds by the Corporation's organisations.





## Directly controlled organisations

### VSMPO-AVISMA Corporation JSC

CEO – Mikhail Fedorovich Voevodin

VSMPO-AVISMA Corporation JSC is the world's largest producer of titanium products: bars and all types of semi-finished products made of titanium alloy. The company also produces pressed products of aluminium alloys, semi-finished products of alloyed steel and refractory nickel-based alloys. The company has 350 partners in 49 countries.

VSMPO-AVISMA Corporation JSC is integrated into the global air space industry, and it acts as the main strategic supplier of titanium products, including complex blanks with high degree of mechanical tooling, for many enterprises of that industry. The main volume of the company's exported products is sold under long-term agreement, thus minimising the market risks.

The main foreign partners of VSMPO-AVISMA Corporation JSC are: Boeing, Airbus, Embraer S.A., Rolls-Royce plc, Safran Aircraft Engines, Safran Aero Boosters, Safran Landing Systems, UTC Aerospace Systems TECT, Uniti Titanium, Blades Technology Limited (BTL), Orchid Orthopedic Solution, etc.

#### KEY ACHIEVEMENTS AND EVENTS IN 2017

- In 2017, Airbus selected the company as the supplier of new types of products, including tooled blanks for the A350 XWB.
- VSMPO-AVISMA Corporation JSC was the first Russian partner of Airbus to have been recognized as a top supplier in terms of quality of products and was awarded the "greatest improvement" award.
- At the end of 2017, the company and the government of the Sverdlovsk Region entered into a special investment contract (SIC) under which the company will implement an investment project worth more than 1.2 billion rubles to upgrade a rolling facility.
- VSMPO-AVISMA Corporation JSC signed several long-term agreements with Rolls-Royce lasting through 2026. Pursuant to the new agreements, the company will supply Rolls-Royce with titanium discs, blisks and fan discs for brand new jet engines.

#### GROWTH DIRECTIONS:

VSMPO-AVISMA Corporation JSC supplies titanium products for most engine-building programmes in the aviation and industrial sector of economy. In 2018, the company will supply to Russian customers 7,000-8,000 tons of products. About 25% of the total production output will be supplied to the Russian market. According to preliminary forecasts, in 2018 the company expects to increase output by 12.5% in almost all production fields.

VSMPO-AVISMA Corporation JSC is implementing a large-scale investment programme to strengthen its positions in the global market. During the previous 10 years, more than 1.8 billion dollars were invested in production improvement. Since 2012, the company's total production output has never dropped below 28,700 tons per year, and as early as 2018 it will exceed 32,000 tons per year. The development strategy focuses on upgrading existing production facilities and developing of the scientific base in order to extend the range of technologically advanced products with added value. In the next five years, more than 40% of the products produced will be blanks.

#### NCI LLC

CEO – Konstantin Yurievich Solodukhin

NCI (National Centre for Informatisation) LLC is an integrator of technologically advanced solutions for the digital economy. The company develops eco-system projects and integrated products to develop the digital economy and promotes them in both domestic and international markets.

In 2017, the company increased the volume of its work to cover the needs of major customers and demonstrated a record-breaking growth of sales. At the end of 2017, the revenue exceeded that of the previous year by 4 times. One of the reasons for such growth is the changing strategy and business model of the company, as well as an increase in the number of customers and the successful implementation of several IT projects on the federal level.

As regards the strategic changes, NCI LLC has shifted from the vendor model to the model of an integrator of technologically advanced Russian solutions, which enabled a significant expansion of the competences and capabilities of the company in the IT services market and an increase in the number of potential customers.

#### MAJOR PROJECTS OF THE COMPANY IN 2017 INCLUDE THE FOLLOWING:

1. Building information and communication services for the 2017 FIFA Confederations Cup and the 2018 FIFA World Cup.
2. Developing and supporting the state information systems EGISZ and GIS OMS for development of "digital healthcare" in Russia.
3. Integrated automation of the Russian Post Federal State Unitary Enterprise, including the design and development of the order management, electronic document workflow and immovable property management functions.
4. A project for deploying IT for the medical and social know-how of the Ministry of Labour of the Russian Federation. A protected network for data transfer has been established at 772 facilities in 72 federal subjects of the Russian Federation.

In 2017, subsidiaries of Konversia NPO LLC and RusITExport LLC joined NCI LLC for purposes of increasing the share of non-defence products and non-resource export as per the instructions of the President of the Russian Federation.

Konversia NPO LLC is a profit-making organisation established by the Rostec State Corporation and Vnesheconombank with a purpose of promoting an increase in the volume of non-defence products produced by the defence industry sector's enterprises. Konversia NPO LLC is an "agent of change", an organisation helping executives, the defence industry sector's enterprises, development institutes and financial organisations implement a harmonised policy to diversify industrial production as per the strategic priorities of the government.





RusITExport LLC (commercial name – RITE) is an integrator of Russian IT solutions on the global market. The company was established in 2017 for the sale and implementation of Russian integrated IT solutions on foreign markets, and it must become a tool for development of non-resource export of Russian information technologies. RITE helps the best Russian IT companies and solutions reach the foreign market and this, in turn, will allow to achieve the goals of the digital economy development in Russia. Today, RITE's partners include 100 leading Russian IT companies, and the product portfolio of the company comprises more than 150 solutions.

A subsidiary of NCI LLC, BARS Group JSC, celebrated in 2017 its 25th anniversary of working on the technologies and innovations market. The most outstanding project for automating the work of the federal executive authorities was the launch of the Federal State Information System for Construction Pricing. The company developed the tool for monitoring prices in the construction sphere of Russia almost from scratch.

Today, NCI LLC consolidates and offers the best Russian IT products for integrated solution of problems both in Russia and abroad. In 2018, NCI LLC expects to increase its sales by almost 2.5 times.

## Oktava PJSC

*Temporary CEO – Alexander Petrovich Veselov*

Oktava PJSC, a Tula-based plant established in 2017, engages in the production and commercial output of communication means for both military and civilian use.

### MAIN TYPES OF NON-DEFENCE PRODUCTS:

- microphone equipment;
- telephones and microphone cartridges;
- telephone and microphone headsets.

### OKTAVA PJSC PRODUCES THE FOLLOWING FOR THE DEFENCE INDUSTRY'S ENTERPRISES:

- intercom stations;
- loudspeaker communication equipment;
- wired communication systems;
- alarm equipment;
- aviation headsets.

The Oktava brand is well-known among professional musicians. Microphones produced by the plant have been used by famous artists such as U2, Sting, Iron Maiden, Radiohead, Marilyn Manson and Vladimir Vysotsky. Yuri Gagarin used a microphone manufactured by Oktava for his famous "Let's go!" speech.

The Rostec State Corporation has owned of Oktava PJSC since 2009. From 2012 to 2017, this asset was managed by Ruselectronics JSC.

In implementing a project to establish the Oktava Creative Industrial Cluster, the Corporation's Supervisory Board decided to transfer the enterprise to the direct control of the Corporation under the leadership of Vasily Brovko, director for special commissions.

At the end of 2017, Oktava PJSC exceeded its revenue target by 17% due to the growth in the non-defence products' sales volumes, and also reached a break-even point.



In 2018, the company expects to focus on further growth of sales volumes, upgrading current products and outputting new ones, entry into the retail sales market, opening an internet store and updating of its web-site.

## RT-SocStroy LLC

*CEO – Alexander Samuilovich Kolotov*

RT-SocStroy LLC is engaged in the construction of technologically advanced healthcare facilities like perinatal centres in the Russian Federation.

By the end of 2017, the company had completed 90% of work under the federal programme for construction of perinatal centres in the Russian regions. The programme, developed by the Ministry of Healthcare of the Russian Federation, is designed to increase the level of medical care for infants and women during pregnancy and after delivery nation-wide. Overall, RT-SocStroy LLC will build 15 clinics in the country to serve more than 45,000 pregnant women per year. The total cost of construction work and the medical equipment is more than 36 billion rubles.

Today, there are perinatal centres operating in Makhachkala, Nazran, Penza, Ufa, Bryansk, Orenburg, Yakutsk, Tambov and Ulyanovsk. A clinic in Arkhangelsk is almost (more than 90%) ready for operation. Other facilities are also at a high level of readiness: Petrozavodsk (85%), Smolensk (87%), Gatchina (88%), Pskov (89%) and Ulan-Ude (88%).

The programme is financed out of the funds of regional budgets and the Federal Compulsory Medical Insurance Fund. An additional 1.7 billion rubles have also been allocated from the anti-crisis fund of the Rostec State Corporation to complete work in several regions.

## Oktava Creative Industrial Cluster

In 2016, an agreement was signed during the Saint Petersburg International Economic Forum between the Rostec State Corporation, the Government of the Tula Region and private investor Mikhail Shelkov to establish the Oktava Creative Industrial Cluster at the plant facilities of Oktava PJSC.

The project was presented to and approved by the President of the Russian Federation Vladimir Putin. It was decided not only to preserve the plant in its historic territory, but also upgrade it while establishing the cluster.

The project was managed by a team of specialists led by Vasily Brovko, director for special commissions of the Rostec State Corporation and chairman of the Board of Directors of Oktava PJSC.

The cluster includes a Machines Museum, Higher Technical School and comfortable urban space for leisure and rest: a 1,000-metre multi-purpose hall for lectures, shows and plays, a unique technical library, the FabLab fabrication laboratory and a fan-zine editors office.





## Kaliningrad Amber Factory JSC

CEO – Mikhail Ivanovich Zatsepin

Kaliningrad Amber Factory JSC is the only Russian enterprise engaged in the commercial extraction of amber. The extraction and production sites are located near the Yantarny settlement, which contain about 90% of the world's reserves of amber, the age of which is approximately 50 million years old.

### KEY OPERATING RESULTS OF 2017:

- Commercial amber production increased by 1.5 times to 453 tons. This was an absolute record-breaking number in 40 years of work.
- During the year, the plant held four open tenders, including a tender for the sale at Amberforum-2017 of a unique amber stone weighing above 1 kg.
- 170 tons of amber were sold at the exchange for 1.2 billion rubles. The bidders included more than 100 Russian and foreign companies.
- 19 nuggets weighing above 1 kg were extracted. This is the first stone weighing 3.2 kg found in the last 30 years, and today it is stored at the exhibition complex.

### IN 2017, THE COMPANY ACCOMPLISHED THE FOLLOWING:

- Amber picking and batch forming capacities were expanded, warehouses have been repaired and special

areas for the intake of products were established, and new transparent packaging for the products was introduced.

- Pre-design work for the mining, beneficiation and processing plant was completed.
- New processing solutions are being elaborated to ensure a high level of automation and maximum integrity of the amber's natural properties.

## TEC Russia JSC

CEO – Vladimir Yurievich Vlasov

TEC Russia JSC is a transportation and exhibition complex meeting the current international requirements that have been established for the best interests of the Russian machine-building companies. TEC Russia JSC facilitates demonstrations of arms and military equipment, as well as non-defence products. Facilities of TEC Russia JSC are regularly used to hold the Aviation and Space Salon MAKS and other national and international exhibitions, and other exhibitions of a national and international scale, as well as permanent exhibitions of the ground forces' armaments, transport engineering products and products of high-technology sectors of Russian industry.

### STRATEGIC GOALS OF THE COMPANY:

- Ensuring the uninterrupted functioning of the Ramenskoe airfield complex for commercial transportation and the service maintenance of aircraft and increasing the Moscow aviation hub's competitiveness on the airport services market;



- Steady and long-term growth of business, ensuring return on investments and their profitability for the best interests of the Rostec State Corporation;
- Organization of international aviation and space salons and exhibitions of civilian, military and dual-use products.

## Technopromexport Engineering Company LLC

CEO – Madina Mukharbievna Suyunova

Technopromexport Engineering Company LLC offers integrated solutions for the construction of energy facilities and implements turnkey projects of any level of complexity by providing an entire package of services for building energy facilities, from the design, survey and construction to project management.

Technopromexport Engineering Company LLC carries out the entire lifecycle of work under EPC/EPCM contracts.

In 2017, a site for constructing the Sirik thermal power plant (TPP) was opened to mark the commencement of the project on the shore of the Gulf of Oman in the Hormozgan province of the Islamic Republic of Iran. The installed capacity of TPP will be 1,400 MW. The project implementation will take 55 months and will be completed by 2022.

In addition in 2017 Technopromexport Engineering Company LLC received 25% plus one share in TNS-Energo Group JSC. The agreement will remain in force for one year and implies a possibility to purchase a shareholding interest and transfer it into the authorised capital of the company during the agreement's term.

## Neftegazavtomatika JSC

CEO – Konstantin Vladislavovich Stanislavchik

Neftegazavtomatika JSC is the Centre for Oil and Gas technologies of the Rostec State

Corporation, a subsidiary of the Corporation. The company is a key link in phasing out imports in the fuel and energy industry.

The company has developed and deployed at the fuel and energy industry's facilities more than 100 systems to automate the extraction, transmission, refining of oil and gas, storage, accounting and sale of oil products. Designers and process engineers of the company have developed and continue to improve the off-shore drilling control and management systems. The equipment build by company is installed on interplanetary descend vehicles.

The company aims at becoming the market leader for technologically advanced import-substituting products for the fuel and energy industry's enterprises by 2020.

## Natspromlizing LLC

CEO – Dmitry Borisovich Eroshok

Natspromlizing LLC is a joint venture of the Rostec State Corporation and the Industry Development Fund. The company has been established as a means for implementing the import phase-out policy and modernisation of fixed assets.





Today, Natspromlizing LLC is the only leasing company in Russia specialising in the targeted support of the industry in the field of machine-tool building, industrial equipment and upgrade of production facilities and sales assistance for the Corporation's organisations.

Natspromlizing LLC is an authorised leasing company of the Leasing Projects programme of the Industry Development Fund.

## Tyazhpromexport VO JSC

*CEO – Grigory Yakovlevich Wolkenstein*

Tyazhpromexport VO JSC provides assistance to foreign countries in designing, building, reconstructing and operating the enterprises of ferrous and non-ferrous metals industries, mining and coal industries and machine-building plants in terms of both technical assistance and turnkey solutions. The company also exports and imports integrated machines and equipment for enterprises of ferrous and non-ferrous metals industries, enterprises of the machine-building sector and mining and coal facilities. Tyazhpromexport VO JSC cooperates with more than 30 countries of Europe, Asia, Africa and Latin America.

On 26 July 2017, the company celebrated its 60th anniversary.

In 2017, Tyazhpromexport VO JSC has completed two projects in the Republic of India: the construction of an agglomeration plant in Visakhapatnam and the upgrade of a plant in Bokaro. Tyazhpromexport VO JSC was responsible for the following scope of work: supplying design documentation and primary processing equipment, supervising and managing construction, installation, startup and commissioning of the facility, as well as training the Indian operating staff.

## RT-Invest LLC

*CEO – Andrey Evgenyevich Shipelov*

RT-Invest LLC focuses on the thermal disinfection of solid municipal waste (SMW) and SMW-based electric power generation for domestic and industrial consumers. The company is also an owner and investor of RT-Invest Transport Systems LLC design company and an operator of the Platon state electronic toll collection system – the largest world's system in terms of territory coverage.

In 2017, the companies of the RT-Invest group won an investment projects tender to construct four SMW-based power generating facilities in the Moscow Region and one facility in Kazan. The total capacity of five plants

will be 3.4 million tons per year, and the electric power will be 335 MW. The plants will cover the electric power needs of about 1.2 million people. The plants are to be launched in 2021-2022. Investments to the project will be more than 150 billion rubles. The nationalisation level of the project will be above 55%.

At the end of 2017, RT-Invest Transport Systems LLC ensured uninterrupted functioning of the Platon system that encompasses more than 52,000 kilometres of federal motor roads and more than 960,000 registered vehicles with a weight of above 12 tons. More than 42 billion rubles were allocated to the budget of the Russian Federation over the period of Platon's operation. These funds are utilised by the Ministry of Transport of the Russian Federation for the construction and repair of motor road facilities: more than 1,700 km of dysfunctional motor roads have been repaired, and 31 bridges are being reconstructed. The largest facilities launched in 2017 include: the new Borsky bridge in Nizhny Novgorod, Voroshilovsky bridge in Rostov-on-Don, Sverdlovsky bridge in Penza and Gogolevsky viaduct in Petrozavodsk.

## Centravamed JSC

*CEO – Ekaterina Vladimirovna Likhova*

Centravamed JSC is a multi-disciplinary therapeutic, prophylactic and consulting institution providing fee-based healthcare services and healthcare services provided by insurance companies under optional medical insurance plans.

The centre's staff includes highly qualified doctors and candidates of medicine, as well as doctors and nurses of the highest category.

The equipment allows to carry out all types of laboratory research: fluorography, X-ray imaging, ultrasound imaging, triplex blood vessels scanning, endoscopic imaging (gastroscopy, rectoscopy), ECG, rheovasography (REG), respiratory function, audiometry, electroencephalography, all types of electrotherapy and post-trauma rehabilitation.

## Zelenaya Roshcha Resort JSC

*CEO – Zaurbek Khasanbekovich Jeliev*

Zelenaya Roshcha Resort JSC is located in the city of Sochi. The resort offers services including accommodation, catering, treatment and leisure.





## 3.5 Overview of innovative products and advanced technologies of the State Corporation Rostec

### Sovigripp

*Inactivated vaccine for flu prevention*

*Designed for annual vaccination against seasonal flu. Used in the free vaccination of adults and children as part of the National Preventive Vaccine Calendar*

Despite active preventive measures, flu epidemics occur each year all over the world. Anti-viral medications are often incapable of protecting against potential serious complications such as pneumonia, otitis and meningitis. During the flu season of 2016/2017, there were only 38 lethal cases of flu registered in Russia, compared to 671 more just one year earlier. The overwhelming majority of the cases occurred in non-vaccinated citizens.

Since 2017, every Russian citizen can be vaccinated with an efficient and safe vaccine produced in Russia by Sovigripp. The medication has been recognized by the WHO and has been actively used for the free vaccination of the population of Russia.

It is not the composition that makes Sovigripp unique, but the adjuvant – an additive that strengthens the immune response. Similar flu vaccines contain Polyoxidonium adjuvant, and Sovigripp is the only vaccine containing Sovidon.

The polymer nature of this component guarantees its useful properties – deactivation of toxins, immunity building, antioxidant properties, protection of membranes and cells. It is this component that ensures the vaccine's efficiency.

The trials and experience of use have proven that Sovigripp is almost non-toxic and non-pyrogenic (i.e. it does not lead to an increase in body temperature). This ensures a high tolerance of the drug by people. There are two types of Sovigripp: a preservative-free vaccine for children aged 6 months and above, as well as for adult and pregnant women of any age; and a preservative-containing vaccine for adults aged 18 and above.



Available for children over

**6 MONTHS**

- A high level of safety ensured by multi-level virus decontamination
- Ensures steady and long-lasting immunity
- The composition changes annually as per the recommendations of the World Health Organisation (WHO)
- Protects against the three most dangerous current strains: A (H1N1) Michigan, A (H3N2) Hong Kong, B Brisbane
- Doses in vials or single-use 0.5ml syringes







# KAMAZ-6282

## A low-floor large-capacity electric bus

*This KAMAZ electric bus has been specially developed for the Moscow Government as part of the Russian capital's bus fleet upgrade programme*

Today, the KAMAZ-6282 electric bus is entirely ready for commercial production and meets all the requirements of urban electric transport. Its advantages include its environmental friendliness, noiselessness and operating economy.

The KAMAZ-6282 electric bus has already been tested on an existing commuter route in Moscow to good results. KAMAZ PJSC obtained the required test data to make improvements. The upgraded KAMAZ electric bus and a quick charge station were transferred to Mosgortrans during a grand ceremony. The second-generation KAMAZ-6282 has already been awarded the Best Russian Bus title at the Bus World Russia-2016.

### ADVANTAGES

- **Lithium-titanate batteries**  
Operating resource of more than 10,000 cycles and 10 years of service life
- **All-metal body**  
15-year warranty against perforation corrosion
- **Adapted for the transportation of physically challenged passengers**
- **Integrated heating system**  
Operation under subzero temperatures up to -45 °C

The electric bus is equipped with lithium-titanate batteries. Apart from its high capacity and small dimensions, this type of accumulator is notable for its eco-friendliness. A vehicle equipped with this type of accumulator can operate even under severe weather conditions, and the battery can be charged at a temperature of -40 °C without any additional heaters. Thus, KAMAZ-6282 is capable of carrying passengers at any time of the year.

It takes only 6-20 minutes to charge KAMAZ-6282. The small dimensions of the charging station make it unique.



Other advantages include connectivity to alternate or direct current mains, as well as automated charging.

In addition the new electric bus is distinguished by its modified, spacious cabin. There is no engine compartment, so the total number of seats has been increased to 85. It is also adapted for physically challenged passengers, equipped with CCTV cameras and a satellite navigation system.

### SPECIFICATIONS

**85**  
**PASSENGERS**  
cabin capacity

- **Maximum speed — 75 km/h**
- **Charging time — from 6 to 20 minutes**
- **Maximum driving distance — 100 km**
- **Passenger capacity — 85**
- **Dimensions — 12,155 x 2,500 x 3,480 mm**





# Mi-171A2

## Most advanced medium category helicopter

*Designed with the use of advanced technologies and based on the rich experience in operating the Mi-8/17 helicopter series*

In August 2017, the Federal Air Transport Agency (Rosaviatsiya) has issued a type certificate to Mil Moscow Helicopter Plant JSC for the Mi-171A2 helicopter.

The helicopter is distinguished by a wide range of tasks: it can be customized for transportation, passenger-carrying, fire-fighting, search-and-rescue, medical-and-evacuation and VIP configurations.

The first operator of Mi-171A2 on the Russian market was Utair Airlines PJSC. During the MAKS 2017 aviation salon, Russian Helicopters JSC and Utair Airlines PJSC signed an agreement for the transfer of two Mi-171A2 for test operations.

The first export contract for Mi-171A2 was signed by Russian Helicopters JSC at Dubai Airshow 2017. Vectra Group will be the foreign operator of the vehicle.

### Operational ceiling

**6,000<sub>M</sub>**

Overall, Rosaviatsiya certified dozens of changes in the standard structure of the helicopter. They include:

- Increased take-off weight of the helicopter – up to 13 tons in category A;
- Integrated navigation instrumentation developed by KRET JSC, enabling a reduction in the crew from three to two persons;
- Expanded field of operation thanks to an advanced avionics system – now the helicopter can be successfully operated high-mountain regions, under extreme temperatures and high humidity, at any time of the day or night, and in standard and severe weather conditions;
- VK-2500PS-03 gas turbine engines with digital control;
- The main and X-shaped rotors of Mi-171A2 are made of composite materials, so that the total weight of the system was reduced and the propeller thrust was increased by 700 kg. In addition, the cruise speed and maximum speed were increased by 20%, and the flying range was increased to 800 km.

### • High level of safety

It can be easily operated at any time of day or night and in standard and severe weather conditions

### • Powerful power unit

VK-2500PS-03 gas turbine engine with digital control

### • Advanced avionics

Integrated navigation instrumentation enables the operation of the vehicle without any engineer onboard

**280<sub>km/h</sub>**

MAXIMUM SPEED

**800<sub>km</sub>**

MAXIMUM FLYING RANGE

**13,000<sub>kg</sub>**

MAXIMUM TAKE-OFF WEIGHT

**24<sub>persons</sub>**

PASSENGER CAPACITY

**-50/+50<sub>°C</sub>**

RANGE OF OPERATING TEMPERATURES





# SaM146-1S18 engine

*A power unit for the next-generation regional aircraft*

*SaM146 engines are installed on the Sukhoi Superjet 100 next-generation regional and short-haul aircraft*



- *High reliability and low cost of operation*
- *Full interchangeability within the aircraft model range*
- *Certification by Russian and international standards — EASA and IAC AR*
- *Conformity to the environmental requirements of the International Civil Aviation Organisation (ICA)*

SaM146 is a small-sized, reliable and environmentally friendly engine built on the basis of experience and new Russian and Western engine-building technologies. This is the first Russian-made engine that has received the EASA-type certificate.

The engine's design aftersale servicing is quite easy, as the SaM146 is easily detached from the wing to replace necessary components.

In addition, the aftersales service system has also been improved:

- Spare parts distribution centres have been built in Lytkarino near Moscow and Villaroche, France;
- There is a 24/7 support desk and a web-portal for customers;
- There are two training centres in Russia and France where the engineering staff of airline companies are trained.

## SPECIFICATIONS

*SaM146 is easily detached from the wing to replace components*

- *Emergency mode thrust — 7,900 kgf*
- *Take-off mode thrust — 7,332 kgf*
- *Specific fuel consumption in the cruise mode — 0.63 kg/(kgf·hour)*
- *Dimensions — 2,070 x 1,220 mm*

Today, SaM146 engines are installed on the airliners of 15 operators in Russia and other countries, including Mexico, Ireland and Thailand.

Today, there are four certified modifications of the SaM146:

- **1S17** — basic configuration;
- **1S18** — increased thrust (by 5%) version;
- **1S17C** and **1S18C** — for corporate aircraft.

Work to further improve the SaM146 and its maintainability, as well as life characteristics and technical parameters, is ongoing.

In the long term, the model range of SaM146 engines will be one of the first in which parts manufactured by the Centre for Additive Technologies (CAT) of UEC-Saturn PJSC will be installed. CAT is a unique Russian centre specialising in the manufacturing of parts, models and units of gas turbine engines for aviation and ground-based operations using the layer-by-layer synthesis method.





# Kometa 120M

## NEXT-GENERATION HYDROFOIL SEA PASSENGER SHIP

*The ship is designed for passenger transport in the coastal sea zone*

Vympel Shipyard JSC (Rybinsk), a member of Kalashnikov Concern JSC, first launched the Kometa 120 M next-generation hydrofoil sea passenger ship in 2017.

Kometa 120M will primarily differ from previously built models due to its high level of passenger comfort: the ship

has roomy economy and business class cabins, as well as an automatic motion and overload reduction system.

This is a very important project for the ship-building enterprise as it opens a brand new field of business – the construction of civilian ships.

It is expected that five more ships of that series will be built in the near future.

RT-Chemcomposite is also involved in equipping the ship by supplying the glazing.



*Kometa will be put into service in 2018 and will carry passengers along the SEVASTOPOL–YALTA route*



- Roomy cabins with aviation-type armchairs
- Automatic motion and overload reduction system
- Glazing made of high-strength monolithic polycarbonate

# 120

**PASSENGERS**  
maximum passenger capacity

## SPECIFICATIONS

- Dimensions — 35 x 10 x 10 m
- Displacement — 73 t
- Speed — 35 knots (=65 km/h)
- Crew — 5 members
- Travel distance — 200 miles





## Izh motorcycle

### Luxury motorcycle

*The new heavy motorcycle is being developed for the Cortege Project.  
The first batch is expected to be delivered in the first half of 2018*

Kalashnikov Concern JSC is primarily known as a manufacturer of weapons, but recently the Concern has been actively developing other promising fields of business.

The very first Russian motorcycles were manufactured in 1929 in Izhevsk, and their commercial output was launched in 1946 at the Izhevsk Machine-Building Plant. Overall, more than 10 million vehicles of various models have been manufactured during sixty years of work.

Thus, Izhmash was well-known not only for the legendary automatic rifle, but also for its motorcycles.

Today, Kalashnikov Concern JSC is working on a revival of Izh motorcycles, whose production ceased in 2008. A concept of the new heavy motorcycle was demonstrated at the Army-2017 forum, and the test prototype of the model was presented at the Future-Oriented Russia Exhibition held at the Manege Central Exhibition Hall.

### Maximum speed

**250 km/h**

The new model is distinguished by an outstanding, futuristic design – streamlined shapes, large wheel casings and an elongated profile. The motorcycle's length is almost 3 metres, and it weighs more than half a ton. Its maximum speed is 250 km/h, and accelerating to 100 km/h takes only 3.5 seconds.

The first batch of heavy motorcycles will be delivered as early as 2018. As expected, it will be used for the Cortege Project, implying the development of Russian-made luxury vehicles – limos, 4x4s, minivans, and sedans – for the country's leaders.



- **Futuristic appearance** — aerodynamic shapes, streamlined body

- **Engine type** — gasoline, opposed

- **Model adaptation** — as per the requirements of customers and agencies

**3.5 sec**

ACCELERATION TO 100 KM/H

**2,900 x 940 x 1,250 mm**

DIMENSIONS

**510 kg**

WEIGHT

**110 kW**

ENGINE POWER







# VRT300

## HELICOPTER-TYPE DRONE

The VRT300 system has been designed in two versions:

**ARCTIC SUPERVISION** — with a side-looking airborne radar for ice reconnaissance and operation under Arctic conditions

**OPTICVISION** — with an extended flying range for monitoring and remote sensing

### ARCTIC SUPERVISION

VRT300 Arctic Supervision is primarily designed for developing the transportation system of the Northern Sea Route and assisting in exploration of the Arctic Region. Therefore, the system is equipped with a high-resolution X-band side-looking airborne radar that can quickly assess the ice conditions' dynamics. VTR300 is equipped with a diesel engine and can be launched from a ship, and making it indispensable both on icebreakers and drilling rigs.

Due to its high payload (70 kg), the system can be used for transporting various cargoes, such as foodstuff and medications, from a ship to a polar station and back. The system is also designed to assess ice thickness along its flight route, assist search and rescue operations in the open sea, as well as evaluate large ice fields for purposes of building polar research stations.

## TASKS PERFORMED

The VRT300 helicopter-type unmanned aerial vehicle was first demonstrated at the MAKS-2017 International Aviation and Space Salon

It is the first Russian-made unmanned helicopter for the civilian market

- Monitoring of environmental situations, including the water surface
- Assessing and monitoring roads and roadside infrastructure facilities
- Mapping
- Cargo transportation
- Search and rescue operations

## SPECIFICATIONS

- Maximum take-off weight — 300 kg
- Payload weight — 70 kg
- Maximum speed — 180 km/h
- Flight duration — 5 hours
- Operating range — 150 km



### OPTICVISION

The Opticvision version of the VRT300 system is designed to develop the system for emergency diagnostics, prevention and mitigation in the field of production and transportation of energy resources. Other tasks fulfilled by the system are: conducting diagnostics of overhead transmission lines, mapping, cargo transportation, search operations and monitoring environmental situation, roads and roadside infrastructure facilities.







# ZALA 421-16E5

## Air drone

*For the first time in Russia, an unmanned aerial vehicle was equipped with fully redundant main systems for flight safety*

The new unmanned aerial vehicle by Kalashnikov Concern JSC is designed for surveillance operations under unfavourable environmental conditions at any time of day or night. It can function at a distance of up to 150 km and transmit video signals in online mode and can functionally replace a larger, airfield-based unmanned aerial vehicle.

It can be used for security operations, mitigating and preventing emergencies, patrol work over lengthy state borders, area monitoring, and preventing environmental disasters.

It enables the receipt and transmission of information in online mode with the concurrent transmission of a TV signal and position finding, as well as collection, accumulation and processing of information.

The ultra-precise inertial measurement unit allows the unmanned aerial vehicle to continue its mission and automatically land in the specified area, even when the satellite navigation system's signal is lost.

ZALA 421-16E5 can be launched from unequipped platforms and it can land in any area, and it does not require special training.

## SPECIFICATIONS

- Video channel operating radius — 150 km
- Flight duration — 6-7 hours
- Wing span — 5,000 mm
- Maximum flight altitude — 3,600 m
- Speed — 65-110 km/h

**ZALA 421-16E5**  
*is designed for surveillance operations under unfavourable environmental conditions at any time of day or night*

- Airborne surveillance tactical system
- Characterised by best-in-class operational and physical characteristics with electrical power units

Video channel  
operating radius  
**150** km







## REX-1

### Electromagnetic rifle

*Designed to disable any unmanned aerial vehicle*

Kalashnikov Concern JSC debuted its innovative product, the REX-1, at the Army-2017 international forum. The new non-lethal rifle is capable of disabling UAVs and various radio-electronic equipment. The state tests are to be held in 2018.

The REX-1 rifle resembles an automatic rifle but does not fire any rounds. The electromagnetic rifle disables UAVs (unmanned aerial vehicles) without damaging them – the drones disconnect from the control point and land smoothly.

Suppression modules jam the signals of all existing satellite navigation systems: GPS, GLONASS, BeiDou and Galileo. REX-1 can also jam mobile communication signals, 3G and LTE signals.

Additionally, the device can cause interference at the frequencies of 900 MHz, 2.4 GHz and 5.2–5.8 GHz. REX-1 is distinguished by its ease of use. Pressing one button makes the device fully operational. Its small weight and dimensions also make it more advantageous than any counterpart.

The model is equipped with an integrated power supply unit ensuring three hours of uninterrupted operation under ambient temperatures of -40 to +50 degrees Celsius, and it can also be used as an external battery.

Main fields of use of REX-1:

- Privacy protection;
- VIP protection;
- Ensuring safety at secure facilities, including public events;
- Special counter-terrorist operations.



4.5 kg WEIGHT

700 x 160 x 240 mm DIMENSIONS

3 hours RUNNING TIME

3 years CHARGE RETENTION TIME WHEN NOT IN USE

0.5 km ANALOGUE SIGNAL SUPPRESSION RADIUS

2 km SATELLITE SIGNAL SUPPRESSION RADIUS

-40°C to +50°C OPERATING TEMPERATURE



- **Ease of use** — the device is activated by one button
- **Wide operating radius** — suppression of satellite signals within a 2-km radius
- **Small weight** and the smallest dimensions in this class of devices



# Oktava MKL-111

*Premium professional recording microphone*

Microphones manufactured by the Tula factory Oktava JSC have been used for studio recording and shows of foreign and Russian artists for decades. The top-of-the-line MKL-111 model embodies all the best achievements of Oktava JSC in the sound recording industry. Microphones of this class are often used in recording studios of music labels.

One of the most distinctive features of the MKL-111 is the capability of changing the microphone directivity. Its directivity pattern is adjusted smoothly using an adjusting knob on the power supply unit: from the figure-of-eight to the open circle through the cardioid. The sound engineer can select the pattern that best suits the situation.

Due to its directivity switching function, the MKL-111 microphone can be described "all-purpose", i.e. it can be used as three different devices. Undoubtedly, the MKL-111 is a premium microphone.

All electronics are placed inside a heavy brass body eliminating any internal resonance. The preliminary amplifier is equipped with an EF95 lamp or its Russian-made counterpart. The high-quality transformer minimises the level of distortions and provides a good overload capability.



## SPECIFICATIONS

- Directivity — cardioid, figure-of-eight, open circle
- Free field sensitivity per 1 kHz — > 16 mV/Pa
- Temperature range — +5 to +45 °C
- Dimensions — 64 x 255 mm
- Weight — 1.1 kg



*Operating band*

# 20–20,000 Hz

## ADVANTAGES

- Original cartridge design, brass body, vintage style
- Original special-assembly cartridge
- Special tone, original warmth of sound

*MKL-111  
premium microphone*



# INTEGRO

## Interactive hospital ward

*Integro is easily adjustable to any task and can be integrated into wards of any kind – from intensive care and reanimation to general care*



The Integro innovative modular system has been designed as part of the New Quality of Healthcare Environment programme developed and implemented by Shvabe JSC. Wards equipped with this system offer a brand new interactive format of a hospital space – a unique experience for healthcare institutions of Russia.

The interactive ward is composed of several modules of composite materials with antibacterial properties. In particular, the level of infection security is increased by 30% due to the modules' materials.

A data monitor, media screen, lighting equipment, air filtering system and other equipment can be integrated into any module. The modules are selected based on the purpose, staff requirements and needs of patients. The choice of module depends on the ward's configuration type – minimum, basic or maximum.

One of the main advantages of the system is the interactive communication between the doctor and the patient. Technologically advanced equipment allows doctors to remotely monitor the patient's health data and make video calls. The system offers a wide range of options to the patient: nurse call, medical staff communication, media module control and a drug administration reminder.

According to developers, the system can increase the efficiency of space utilisation in healthcare institutions by at least one-third. And the integrated functions such as "smart" lighting equipment, aromatherapy and luminotherapy and special selection of multimedia will allow to improve the quality of stay in the ward and reduce the rehabilitation period.

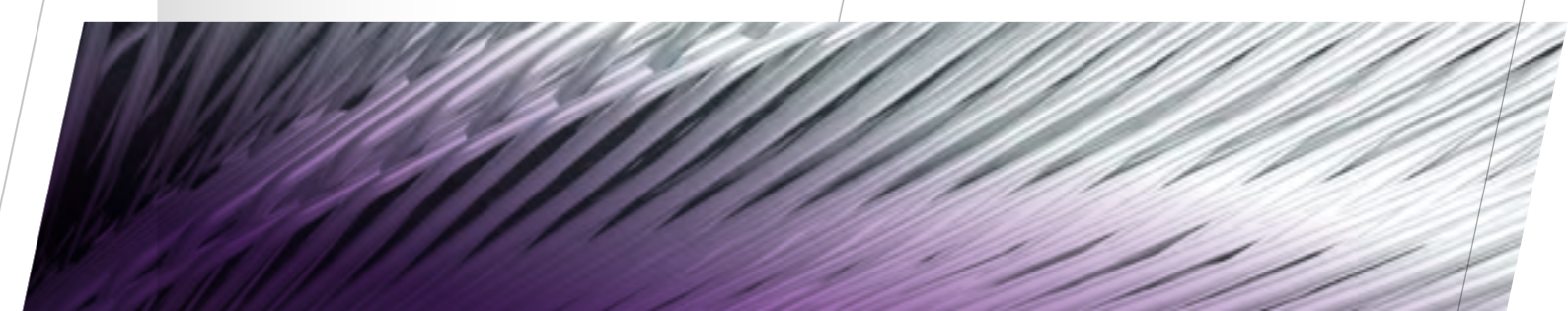
## ADVANTAGES

- **Lighting and multimedia equipment**  
using e-health and chromotherapy capabilities
- **Modules of composite materials with antibacterial properties:**  
the level of infection security is increased by 30%
- **Interactive communication between the doctor and the patient:**  
remote and continuous monitoring



- **High level of utility:**

- multimedia patient screen
- touchscreen doctor's panel
- media screen
- air filtering system
- doctor call button
- aromatherapy and luminotherapy
- adjustable LED lighting equipment





# Neuromuscular interface module

*A significant development for the medical robotics market segment*

The neuromuscular interface module is based on biosensors of the four-wire electrode group by Shvabe JSC designed to record neuromuscular control signals.

The system was designed as part of the Creation of the Components Base for Exoskeletons and Medical Robotics large-scale project being implemented under the Medicine of the Future federal programme.

The device is designed for placement inside an arm prosthesis, active ankle or knee. The bionic control technology can control the prosthesis in online mode.

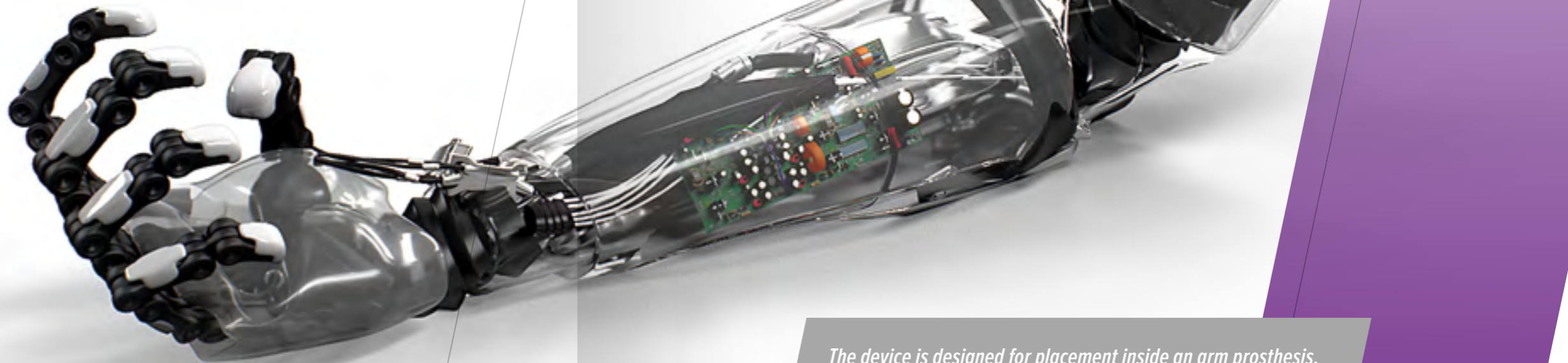
The module recognises and records signals from the healthy fibres of the extremities. Following the analysis of such signals, the device activates the movement functions – wrist grip and release motion, rotation, retraction and adduction of the pointer finger.

The device has been successfully tested, approved by the Scientific and technical Council of the Ministry of Industry and Trade of the Russian Federation and prepared for commercial output. The system has no equivalents in the world and can compete with the leading bionic prostheses and medical robotic systems.

Shvabe JSC is considering the entire range of opportunities to use the new technology – in game consoles, exoskeletons, and to control robotic arms and other technical means.

## BIONIC CONTROL TECHNOLOGY

- *The prosthesis can be controlled in online mode*
- *The module recognises and records signals from the healthy fibres of extremities*



*The device is designed for placement inside an arm prosthesis, active ankle or knee*

## SCOPE OF APPLICATION

- *Bionic prostheses*
- *Rehabilitation of patients with restricted mobility*
- *Control systems for game consoles*
- *Control systems for robotic arms*
- *Exoskeleton control*





## Surgical navigation system

*A hardware and software system of augmented reality enables surgical procedures to be carried out in online mode guided by 3D models*

During the procedure the system allows the surgeon to connect the 3D model to the patient's body and track the position of tools inside the surgical wound and the boundaries of the surgical site. The system is completed with a set of tools.

The system mirrors the real position of the patient and the navigated tools in a navigation model of the surgical region of interest and the graphic image on display. It also facilitates pre-surgery planning and recording of the surgical procedure.

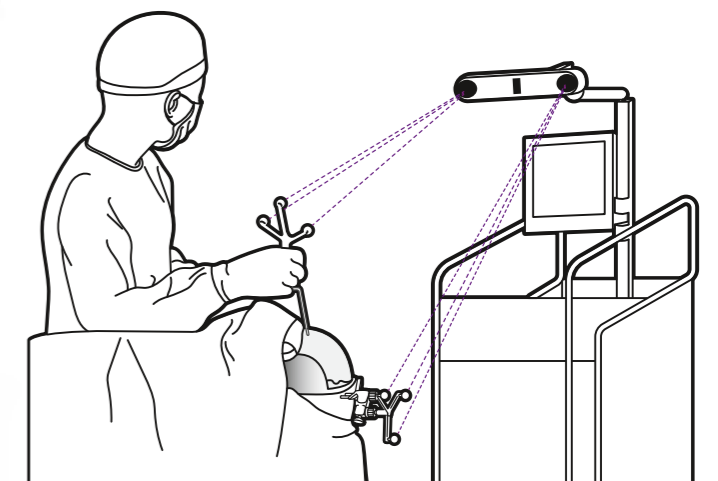
### ADVANTAGES

THE SYSTEM IS COMPLETED WITH A SET OF TOOLS

- *Visualisation of the patient's anatomical features*
- *Visualisation of the pathology's condition*
- *Visualisation of the surgical site*
- *Visualisation of the tools' position*  
at the surgery planning stage and during the procedure
- *The system can create 3D models of the surgical region of interest*  
based on generalisation of the input data obtained from the digital images of the patient



- *The system can operate in two modes — optical and electromagnetic*  
which significantly expands its capabilities





# Pedestrian navigation system

*The information stele was created by specialists of Shvabe JSC in preparation for the 2018 FIFA World Cup. The development is unparalleled in Russia*

Shvabe JSC has created a high-tech pedestrian navigation system as part of the Safe City federal programme in preparation for the FIFA World Cup to be hosted by Russia.

According to the developers, the information stele will not only enable foreign visitors to better navigate in the city, but will also be the main source of news about the 2018 FIFA World Cup.

The system is composed of a terminal with a touch screen. Graphic details, fonts and other elements help the user to easily scale and adapt the navigation system to various city systems. In particular, the device contains a tourist map showing the nearest streets, public transport stations and cultural and entertainment centres.

In addition, the system shows weather data and information about tourist attractions. It can also order a cab or book a room in a hotel. The information is available in Russian and English languages and can be displayed for visually impaired people.

Unlike foreign counterparts that provide only reference information, the Russian-made system can be equipped with a distress button to quickly call the police or other services whenever a dangerous situation occurs.

Besides, the stele can be equipped with a 24-hour audio and video recording system to monitor public spaces in the required field of view, as well as a WiFi spot and a USB hub for charging mobile devices.



## ADVANTAGES



- Information in Russian and English, special interface for visually impaired people
- Distress button to call the police
- 24-hour audio and video recording system
- A WiFi hotspot and a USB hub for charging mobile devices
- Multimedia screen with important tourist information:
  - interactive city map
  - weather data
  - tourist attractions
  - public transportation
  - taxi ordering
  - hotel room booking





## 3.6 Implementation of State Defence Orders and Federal Targeted Programmes by the Rostec State Corporation in 2017

One of the statutory functions of the Rostec State Corporation is ensuring implementation of the State Defence Orders (SDO), Federal Targeted Programmes (FTP) and programmes for military and technical cooperation (MTC) of the Russian Federation with foreign states.

### State Defence Orders

Rostec State Corporation and its organisations in the defence industry sector carried out their work in 2017 pursuant to directives such as the Basics of the State Policy for Development of the Defence Industry of the Russian Federation Through 2020 and Beyond, the Basics of the Military and Technical Policy of the Russian Federation Through 2020 and Beyond and the Basics of the Policy of the Russian Federation in the Field of Science and Technologies Development Through 2020 and Beyond.

The Corporation's organisations related to the defence industry sector hold key positions in the Russian market for the following products:

- civil and military helicopters;
- aircraft engines, aircraft units and instruments, avionics, parachute systems;
- short-range missile systems, multiple-launch rocket systems;

- close-range anti-aircraft systems;
- shooting weapons and close combat weapons;
- ammunition and pyrotechnics;
- mechanical optical and electrooptical devices;
- automated control systems, communications means, communications and radar surveillance equipment, C3 countermeasures systems;
- ciphering systems and means;
- electronic warfare and friend-or-foe identification systems;
- items of the electronic components base and electron discharge devices;
- armoured vehicles;
- military motor vehicles.

The sphere of activities of the Corporation's organisations includes:

- development, manufacturing and upgrade of armaments, military and special-purpose equipment (AMSPE);
- aftersale service, repair and disposal of AMSPE;
- development, manufacturing and service support for civilian industrial products.



In 2017, 319 organisations of the Rostec State Corporation were involved in the implementation of SDO. The problems that arose during the implementation of SDO were reviewed by the the Corporation's Supervisory Board and the Management Board, as well as during the weekly meeting chaired by the First Deputy CEO of the Corporation. During the year the Corporation took organisational measures to increase the role and responsibility of parent organisations of the Corporation's holding companies during SDO implementation.

The largest volume of orders delivered through SDO in 2017 was produced by organisations of the arms, ammunition and special chemistry sector (39% of the total volume).

The most important items of AMSPE supplied by the Corporation's organisations to the Ministry of Defence of the Russian Federation include:

- Helicopters Ka-52, Ka-226T, Mi-28H, Mi-8AMTSH, Mi-8MTV-5-1, Mi-26, Mi-8AMTSH-VA, Mi-28UB, Mi-35M, Mi-8MTV5-PR, Mi-8MTV-1, Ansat-U;
- Iskander-M army missile systems;
- Pantsir-S surface-to-air and anti-tank missile system;
- Tornado-G multiple-launch rocket systems;
- Verba and Igla-S man-portable air-defence systems;
- Ammunition, air bomb weapons;
- Ratnik battle suits;
- Taifun K tactical protected vehicles.

During the implementation of SDO tasks in 2017, the Rostec State Corporation cooperated with federal authorities, governmental customers, as well as third-party integrated structures – primary contractors affiliated with SDO, including: Almaz-Antey VKO Concern JSC, Tactical Missiles Corporation JSC, Corporation MIT JSC, United Aircraft Corporation JSC and United Shipbuilding Corporation JSC.

Generally, the SDO tasks for 2017 were completed by the Corporation. The orders were delivered to the customers within the prescribed time limits under 99.8% of the state contracts and cooperation agreements.

### Federal Targeted Programmes

In 2017, the Rostec State Corporation's organisations participated in a series of measures as part of key Federal Targeted Programmes for the development of the defence industry sector, including:

- Development of the Defence Industry of the Russian Federation for 2011-2020;
- Aviation Industry Development for 2013-2025;
- Support, Development and Use of GLONASS in 2012-2020;
- Development of Industry and its Competitiveness.

In 2017, 98 organisation of the Corporation completed 228 projects under FTPs at a total expense of about 58 billion rubles, including: re-equipment and construction, R&D and exploration and introduction of critical industrial technologies.

### Scope of financing by industrial clusters of the Corporation

INDUSTRIAL CLUSTER	SCOPE, BILLION RUBLES
Aviation Cluster	18.6
Arms, Ammunition and Special Chemistry Cluster	12.3
Radio-Electronic Cluster	27.0

In 2017, the Rostec State Corporation's organisations completed more than 30 investment projects aimed at the technological modernisation of production facilities under the state programmes. In the previous year, the work focused on the further restructuring of industrial capacities used for manufacturing ammunition and implementing integrated projects for the launch of production of import-substituting components and materials for AMSPE.

The Capital Investments Policy of the Rostec State Corporation governs the work of the Corporation's headquarters, its holding companies and its organisations in the re-equipment, reconstruction and overhaul for purposes of deploying and developing the project management system. The policy contains unified approaches for implementing projects, including an entire package of organisational and managerial efforts aimed at timely implementing projects within the predefined value and quality parameters.

The Corporation's special commission has selected the most promising investment, scientific and R&D projects for purposes of developing the state programme for the development of the Russian defence industry sector, and consolidated proposals of the Corporation have been elaborated for the programme. Fulfilling such proposals will allow the Corporation's organisations to satisfy the needs of the governmental customers for advanced AMSPE, increase the production quality and preserve and develop scientific and technical potential.



## 3.7 International activities

In 2017, the Rostec State Corporation used its representative offices in the federal subjects of the Russian Federation (hereinafter referred to as the Representative Offices) within its scope of competence to implement the state policy for military and technical cooperation (MTC). The Corporation has assisted and supported Rosoboronexport JSC in their foreign trade activities with regard to military products.

The Rostec State Corporation cooperated with Rosoboronexport JSC under the Agreement No. P/6435212-900922-PT/91400-852 dated 10 April 2009 on cooperation between Rosoboronexport JSC and the Corporation for the use of its representative offices in the best interests of the governmental agent.

In 2017, 27 representative offices of the Corporation worked for the governmental agent in 42 federal subjects of the Russian Federation. The Representative Offices supported and monitored the progress and quality of more than 800 general contracts and commission agreements entered into by Rosoboronexport JSC to supply foreign customers with military, dual-use and non-defence products worth 24.1 billion USD as implemented by 191 industrial enterprises.

In addition, the Representative Offices assisted the enterprises in various federal subjects of the Russian Federation in the following fields:

- monitoring the production and economic state of organisations involved in implementing projects, programmes and foreign trade contracts in the MTC field;
- supply by subcontractors (including the defence industry sector's enterprises of Ukraine) of components and materials for the production of military and dual-use products;
- participation in interim audits of foreign customers for purposes of technical acceptance of the manufactured arms and military equipment;
- assistance in ensuring the work of foreign customers' representatives and Rosoboronexport JSC at the defence industry sector's enterprises;
- control of timely fulfilment of the customers' requirements arising out of the claim reports;
- acting on behalf of Rosoboronexport JSC in interacting with executive authorities in the federal subjects of the Russian Federation.

In 2017, the Rostec State Corporation signed a series of major contracts and agreements with foreign partners and customers:

- memorandum of agreement for cooperation in developing the gas turbine engine for the advanced Russian-Chinese long-range wide-body aircraft (LRWBA);
- eleven contracts for supplying 32 civilian helicopters to China in 2018-2019;
- a contract to supply multirole Su-35 fighters to Indonesia implying the cooperation of the parties for purposes of implementing the mutual trade programme;
- a contract with the government of Baluchistan, a Pakistani province, to supply of Mi-171 civil helicopters.

The project for the launch of production of the Russian Ka-226T helicopter and its other versions in India is ongoing. The agreement on helicopter-building cooperation of the Russian Federation and India was signed in 2015.

Joint projects are also underway for the launch of production of a wide range of composite materials, metal processing products and tools, as well as process tools for machine-building enterprises of Uzbekistan, in addition to projects in the field of industrial cooperation of automotive industry's enterprises, air traffic control automation in Uzbekistan and supplies and repair of gas turbine and gas pumping equipment.

The Corporation is actively increasing its portfolio of international projects, and its top-priority markets include China, India, Indonesia, Myanmar, Thailand, Saudi Arabia, UAE and countries of the Middle East and North Africa.

### Participation in Exhibitions

N°	EXHIBITION	DATE AND PLACE (2017)
1	<b>SHIELD AFRICA 2017</b> International Security and Defence Exhibition	24-26 January, Abidjan, Côte d'Ivoire
2	<b>Security Technologies 2017</b> , XXII International Forum	7-9 February, Moscow, Crocus Expo International Exhibition Centre
3	<b>AERO INDIA 2017</b> International Aerospace Exhibition	14-18 March, Bangalore, India
4	<b>IDEX 2017</b> International Defence Exhibition	19-23 February, Abu-Dhabi, UAE
5	<b>Mobile World Congress</b>	27 February-2 March, Barcelona, Spain
6	<b>IWA 2017</b> International Exhibition of Sporting and Hunting Weapons	4-7 March, Nuremberg, Germany
7	<b>ExpoElectronica 2017</b> International Exhibition of the Electronic Industry	15-17 March, Moscow, Crocus Expo International Exhibition Centre
8	<b>EXPO-RUSSIA SERBIA 2017</b> International Industrial Exhibition	15-17 March, Belgrade, Serbia
9	<b>International Engineering Sourcing Show 2017</b> International Exhibition of Technologically Advanced Products	16-18 March, Chennai, Republic of India
10	<b>LIMA 2017</b> International Maritime and Aerospace Exhibition	21-25 March, Langkawi island, Malaysia
11	<b>Arctic: Territory of Dialogue</b> International Arctic Forum	29-30 March, Arkhangelsk, Russia
12	<b>LAAD 2017</b> International Latin American Defence and Security Exhibition	4-7 April, Rio de Janeiro, Brazil
13	<b>NEFTEGAZ 2017</b> International Exhibition of Equipment and Technologies for the Oil and Gas Sector	17-20 April, Moscow, Expocentre Central Exhibition Centre
14	<b>KEF 2017</b> Krasnoyarsk Economic Forum	20-22 April, Krasnoyarsk
15	<b>SVIAZ-EXPOCOMM</b> International Exhibition for Telecommunications, Control Systems, IT and Communication Services	25-28 April, Moscow, Expocentre Central Exhibition Centre
16	<b>Iran Oil Show 2017</b> , 22nd International Oil and Gas Exhibition	6-9 May, Tehran, Iran
17	<b>FIA 2017</b> Algiers International Industrial Exhibition	11-16 May, Algiers, Algeria
18	<b>OGU 2017</b> , 21 International Exhibition and Conference	17-19 May, Tashkent, Uzbekistan
19	<b>SITDEF PERU</b> International Defence Technologies Salon	18-21 May, Lima, Peru
20	<b>Russia-ASEAN</b> Business Forum and Summit	19-20 May, Sochi, Russia
21	<b>Comprehensive Security 2017</b> Security Technologies Salon	23-26 May, Moscow, VDNKh
22	<b>Digital Industry of Industrial Russia 2017</b>	24-26 May, Innopolis, Republic of Tatarstan
23	<b>MILEX 2017</b> International Exhibition of Arms and Military Equipment	24-27 May, Minsk, Republic of Belarus
24	<b>HeliRussia 2017</b> International Exhibition of the Helicopter Industry	25-27 May, Moscow, Crocus Expo International Exhibition Centre
25	<b>MIOGE / Oil and Gas</b> International Exhibition of the Oil and Gas Industry	27-30 May, Moscow, Expocentre



N°	EXHIBITION	DATE AND PLACE (2017)
26	<b>SPIEF 2017</b> Saint Petersburg International Economic Forum	2-3 June, Saint Petersburg, Russia
27	<b>Russian-Chinese EXPO 2017</b> Harbin International Economic and Trade Fair	15-19 June, Harbin, People's Republic of China
28	<b>PARIS AIR SHOW 2017</b> International Aerospace Show	19-25 June, Paris, France
29	<b>IMDS</b> International Maritime Defence Show	28 June-2 July, Saint Petersburg
30	<b>INNOPROM 2017</b> International Industrial Trade Fair	10-13 July, Yekaterinburg, Yekaterinburg-EXPO International Exhibition Centre
31	<b>MAKS 2017</b> International Aviation and Space Salon	18-23 July, Zhukovsky, Moscow Region
32	<b>ARMY 2017</b> Third International Military Technical Forum	22-27 August, Patriot Congress and Exhibition Centre, Kubinka
33	<b>Presentation of the Rostec State Corporation</b> at the Federation Council of the Federal Assembly of the Russian Federation	20 September
34	<b>EEF 2017</b> Eastern Economic Forum	6-7 September, Vladivostok, Russia
35	<b>RUSSIA ARMS EXPO 2017</b> Russian Exhibition of Arms/International Exhibition of Arms, Military Equipment and Ammunition	6-9 September, Nizny Tagil, NTIIM FKP
36	<b>Import Substitution 2017</b>	12-14 September, Moscow, Crocus Expo International Exhibition Centre
37	<b>BIOTECHMED 2017</b>	15-16 September, Gelendzhik, Russia
38	<b>BRICS Summit</b>	October 2017, Xiamen, People's Republic of China
39	<b>ARMS &amp; Hunting 2017 International Weapons Exhibition</b>	12-15 October, Moscow, Gostiny Dvor
40	<b>Worldskills 2017</b>	14-19 October, Abu-Dhabi, UAE
41	<b>Interpolytech Exhibition of Police and Military Equipment</b>	17-20 October, Moscow, VDNKh
42	<b>DEFENCE AND SECURITY 2017</b> International Asian Defence and Security Exhibition and Conference	6-9 November, Bangkok, Thailand
43	<b>DUBAI AIR SHOW 2017</b> International Aerospace Exhibition	12-16 November, Dubai, UAE
44	<b>Mexico Business Summit 2017</b>	13-15 November, Puebla, Mexico
45	<b>Kish Airshow 2017</b> , 9th International Air Show	16-19 November Kish, Iran
46	<b>MILIPOL 2017</b> International Security Exhibition	21-24 November, Paris, France
47	<b>Tenth Anniversary of the Corporation Showcase</b>	1 December
48	<b>GULF DEFENCE AND AEROSPACE 2017</b> International Arms and Military Equipment Exhibition	12-14 December, Kuwait City
49	<b>EXPODEFENSA 2017</b> International Exhibition of Scientific and Technology Achievements in Defence and Security	4-6 December, Bogota, Columbia

## 3.8 Investment activities

The investments of the Corporation are primarily devoted to existing facilities maintenance and development of new ones.

The major investment projects of 2017 include:

PROJECT	KEY FEATURES	INVESTMENT ATTRACTIVENESS FACTORS
<b>1. OIL AND GAS PROJECTS</b>		
<b>1.1. KARACHI-LAHORE GAS PIPELINE IN PAKISTAN</b>	<ul style="list-style-type: none"> <li>Constructing a 1,100 km-long gas pipeline with a pumping volume of 12.3 billion cub. m gas per year</li> <li>A contract for 25 years on the "build, own, operate and transfer" (BOOT) terms</li> <li>Preliminary scope of investments for two project phases is 2.9 billion USD</li> <li>As of today, work is underway to select the route of the gas pipeline, conduct surveys, and prepare the design documentation</li> </ul>	<ul style="list-style-type: none"> <li>Return on investments ensured by the gas pumping fee on the "take or pay" terms</li> <li>State guarantee from the Government of Pakistan for project financing and payment of all fees</li> </ul>
<b>2. MINING PROJECTS</b>		
<b>2.1. SUKHOY LOG GOLD FIELD IN THE IRKUTSK REGION</b>	<ul style="list-style-type: none"> <li>Project stakeholders: Polyus PJSC – 58.4% (with a right to consolidate 100% of interests in the joint venture in 2022) and the Corporation – 41.6%</li> <li>Estimated gold production volume is 57 tons per year</li> <li>In 2017, work began at the field, including drilling, construction of the necessary infrastructure and preparation of the engineering documentation</li> </ul>	<ul style="list-style-type: none"> <li>Largest Russian field (more than 20% of all reserves in the Russian Federation)</li> <li>The gold is primarily readily retrievable; average content is 2.1 grams per ton of ore</li> </ul>
<b>2.2. TOMTOR DEPOSIT OF NIOBIUM AND RARE EARTH ELEMENTS IN YAKUTIA</b>	<ul style="list-style-type: none"> <li>Target production volume is 13,000 tons of segregated oxides of rare earth elements (REE) and 8,000 tons of niobium</li> <li>Project stakeholders: EAST Group – 75% minus 1 share, RT-GR LLC – 25% plus 1 share</li> <li>It is expected that, extraction at the Tomtor deposit will begin in the 2020s; today, the technology for extracting rare earth metals is being mastered</li> <li>The total required scope of capital costs is 560 million USD</li> </ul>	<ul style="list-style-type: none"> <li>The deposit of rare earth metals and world-class niobium contains about 30 million tons of ore and 82,000 tons of monazite concentrate</li> <li>Rare earth metals oxide content in ore is one of the highest in the world – 10%, niobium oxide – 4.5%</li> </ul>
<b>2.3. PRONCHISHEVSKAYA OIL AND GAS AREA DEVELOPMENT</b>	<ul style="list-style-type: none"> <li>The field is located in the Sakha Republic (Yakutia); currently, proven reserves are 2 million tons of oil and 5.5 billion cub. m of gas</li> <li>Project stakeholders: private investor – 74.99%, the Corporation – 25.01%</li> <li>In 2017, the work began to exclude the territory from the list of specially protected natural territories of Russia and obtain a license for the geological study and extraction of mineral resources</li> </ul>	<ul style="list-style-type: none"> <li>Project implementation will result in oil supplies for the domestic market and export through the Northern Sea Route</li> </ul>



PROJECT	KEY FEATURES	INVESTMENT ATTRACTIVENESS FACTORS
<b>2.4. DEVELOPMENT OF UDOKAN COPPER FIELD IN THE ZABAYKALSKY KRAI</b>	<ul style="list-style-type: none"> <li>Resources (JORC) – 26.7 million tons of copper</li> <li>Development term – 40 years</li> <li>The Corporation owns an option to the share in the project of 25%; USM Holdings owns a 100% share</li> <li>As of today, the Corporation is negotiating with USM Holdings to exercise the option to take a share in the project</li> </ul>	<ul style="list-style-type: none"> <li>Third-largest non-developed field in the world by reserves</li> <li>The field is connected with the main transport hubs through the Baikal–Amur Mainline; construction of power transmission lines is included in the investment programme of the Federal Grid Company</li> <li>Geographical proximity to China, Japan and South Korea for export purposes</li> </ul>
<b>2.5. RENEWAL OF PRODUCTION OF TUNGSTEN-MOLYBDENUM ORES AT THE TYRNYAUZ DEPOSIT</b>	<ul style="list-style-type: none"> <li>Scope of investments is 22.8 billion rubles</li> <li>Commercial resources: Tungsten trioxide – 209,500 tons (content – 0.432%), molybdenum – 36,600 tons (content – 0.076%)</li> <li>The Corporation is implementing this project through its subsidiary, EGRK LLC (as per the resolution of the Management Board of the Rostec State Corporation No. 54 dated 23 August 2017)</li> <li>Estimated extraction volume is 4,500 tons of tungsten trioxide per year</li> <li>Project implementation began in 2017</li> </ul>	<ul style="list-style-type: none"> <li>One of the world's largest deposits by content of tungsten-molybdenum ores</li> <li>Tungsten is a strategic resource for the defence and civilian industries</li> </ul>
<b>2.6. DEVELOPMENT OF THE COAL DEPOSIT IN THE AMUR REGION</b>	<ul style="list-style-type: none"> <li>Estimated extraction volume is 10 million tons of coal per year</li> <li>Project stakeholders: Joint venture (50%) established by RT-GR LLC with a private partner, and private partners (50%)</li> <li>In 2017, agreements were reached for the involvement in the project of a strategic operational partner, VostokUgol Management Company</li> </ul>	<ul style="list-style-type: none"> <li>The largest coal deposit in the Russian Far East with total estimated reserves and resources of 1.5 billion tons</li> <li>Development term – over 25 years</li> <li>Advantages over similar deposits in terms of costs, engineering work and logistics</li> </ul>
<b>3. SCIENCE, DESIGN AND CONSTRUCTION</b>		
<b>3.1. CONSTRUCTION OF THE SEA COAL TERMINAL IN THE PRIMORSKY KRAI</b>	<ul style="list-style-type: none"> <li>Design volume of transshipment is up to 20 million tons per year</li> <li>Total area of the land plot for the terminal construction is 184 ha</li> <li>Project stakeholders: Joint venture established by RT-GR LLC with private investors (50%) and private partners</li> <li>Transshipment will be carried out on a contractual basis</li> <li>In 2017, agreements were reached for the involvement in the project of a strategic operational partner, VostokUgol Management Company</li> <li>Transshipment will be carried out, inter alia, for the products under the Project for Development of the Coal Deposit in the Amur Region</li> </ul>	<ul style="list-style-type: none"> <li>Proximity to the countries of the Asia-Pacific Region – 1,500 km to the ports in China, South Korea and Japan, compared to 6,500 km to Australia</li> </ul>
<b>3.2. SCIENTIFIC PRODUCTION CENTRE (SPC) ON THE BASIS OF THE CORPORATION'S ENGINEERING ASSETS GIPROTSVETMET JSC GINTSVETMET INSTITUTE JSC VIOGEM JSC, GIPRORIVS JSC</b>	<ul style="list-style-type: none"> <li>At the end of 2017, revenue was above 700 million rubles</li> <li>Engineering assets of the Corporation include the following companies: Giprotsvetmet JSC, GINTSVETMET Institute JSC, VIOGEM JSC, GiproRIVS JSC (share of RT-GR LLC in the authorised capital is 50%)</li> </ul>	<ul style="list-style-type: none"> <li>Targeted support of owned mining projects of the Corporation implemented, inter alia, through RT-GR LLC</li> <li>Attainment of global recognition in the scientific research field, design and engineering solutions with further substitution of foreign companies in the Russian market and the export of services</li> <li>Provision of high-quality services in the scientific research, design and production fields when implementing the mineral resources project in Russia and abroad</li> <li>Establishment of a strong EPC(M) (Engineering, procurement, construction, (management)) player in the mining market of Russia and abroad (Cuba, India, Iran, Venezuela)</li> </ul>

PROJECT	KEY FEATURES	INVESTMENT ATTRACTIVENESS FACTORS
<b>4. PORTFOLIO INVESTMENTS</b>		
<b>4.1. PJSC VSMPO-AVISMA CORPORATION</b>	<ul style="list-style-type: none"> <li>Leader of the world's market for technologically advanced titanium products: from titanium bars to all types of semi-finished products made of titanium alloy</li> <li>Acts as the main strategic supplier of titanium products for many aerospace industry companies, including Boeing and Airbus</li> <li>The Corporation's share in the authorised capital is 25%</li> </ul>	<ul style="list-style-type: none"> <li>Dividend payments</li> <li>Capitalisation growth</li> </ul>
<b>4.2. AEROFLOT PJSC</b>	<ul style="list-style-type: none"> <li>Aeroflot PJSC is the leader of the Russian civil aviation and is virtually the national carrier</li> <li>The top priority is the development of the domestic market and establishing a market presence in Siberia and the Russian Far East</li> <li>The Corporation's share in the authorised capital (jointly with the subsidiary) is 3.3%</li> </ul>	<ul style="list-style-type: none"> <li>Dividend payments</li> <li>Capitalisation growth</li> </ul>
<b>4.3. MEGAFON PJSC</b>	<ul style="list-style-type: none"> <li>MegaFon PJSC is one of the three largest mobile operators in Russia and the leading provider of mobile data transfer services in the Russian market</li> <li>The company's shares are traded at the Moscow Exchange and the London Stock Exchange, in each case under the MFON ticker</li> <li>The Corporation's share in the authorised capital is 1.27%</li> </ul>	<ul style="list-style-type: none"> <li>Dividend payments</li> <li>Capitalisation growth</li> </ul>
<b>4.4. AVIACAPITAL-SERVICE LLC</b>	<ul style="list-style-type: none"> <li>The company specialises in the leasing, financing and arrangement of procurement and sales of civilian aviation equipment and vehicles</li> <li>RT-Business Development LLC (a company controlled by the Corporation) owns 73% of shares in the company</li> </ul>	<ul style="list-style-type: none"> <li>Dividend payments</li> </ul>
<b>4.5. POLYUS PJSC</b>	<ul style="list-style-type: none"> <li>The largest Russian producer of gold and one of the 10 leading global gold mining companies with one of the lowest costs of production in the world</li> <li>The main enterprises of the company are located in the Krasnoyarsk Territory, Irkutsk and Magadan regions, as well as in the Sakha Republic (Yakutia). Holdings include 5 existing ore mines, auriferous gravels and a series of projects in the construction and development stage</li> <li>The Corporation's share in the authorised capital is 0.2%</li> </ul>	<ul style="list-style-type: none"> <li>Dividend payments</li> <li>Capitalisation growth</li> </ul>





## 3.9 Implementation of the Rostec State Corporation's Development Strategy

The Corporation's 2025 Development Strategy was updated as per the decision of the Supervisory Board No. 9 dated 23 December 2015. The main elements of the strategy are:

- 17% (in the ruble equivalent) target yearly average growth of the Corporation's revenue. This target has been approved for purposes of attaining the scale of global leaders;
- focusing resources in fast-growing markets for non-defence products, including by attracting "smart" capital;
- growing the share of non-defence products in the total revenue of the Corporation by 50% by 2025.

In 2017, the system for management and compliance monitoring was incorporated into the Corporation's strategy, and the respective development strategies of the industrial holding companies (IHCs) has also been completed. Thus, the Corporation's principles, primary markets, and key performance indicators have been translated into the documents of a more operational

nature on a differentiated basis depending on the competences and capabilities of the holding companies, as approved by the Corporation's Management Board.

A major analysis carried out while developing the development strategies the holding companies has testified to the ambition and feasibility of the Corporation's strategy and goals.



For purposes of introducing the strategies of holding companies, in 2017 an updated planning system of the Corporation was introduced, and the medium-term action plans for the holding companies and structural units were developed to identify the necessary projects, initiatives, and performance targets related to launching new technologies and products, developing non-defence products' production, increasing operational performance and optimising management.

According to the preliminary performance results of holding companies in 2017, their action plans for 2018-2020 and their 2018 budgets, the Corporation's Strategy is being successfully implemented. It should be noted that EBITDA margin is higher than the targets defined by the strategy which positive affects the opportunity to finance the investment projects.

Realising the Corporation's strategy is directly connected with the efficient functioning of the incentive systems. The strategy's action plan is the foundation for shaping up the key performance targets for the officers of the Corporation and their incentive system.

For purposes of developing the system of incentives for the management of holding companies and structural units, the Supervisory Board of the Corporation has approved a management performance evaluation system for the parent organisations of the holding companies (integrated structures) of the Corporation as per the targets defined in the Corporation's strategy. There are two types of performance criteria:

- **Production and economic** — financial, economic and production criteria for achieving certain economic results, production or market targets. They must include consolidated revenue, revenue from sale of non-defence products, EBITDA margin, consolidated net profit margin, revenue by main product segments or markets, and may include other indicators as per the specifics of the holding company;
- **Specific** — indicators aimed at implementing the key strategic initiatives and projects, including specific non-financial project indicators (such as implementation of strategic initiatives, attracting a strategic investor, restructuring assets, establishing competence centres, estimated main market shares, shaping up the sales system, implementing key projects of the Corporation, cluster, holding companies, etc.).

The main set of key performance indicators and the weight of each such indicator are determined on a differentiated basis under the resolution of the CEO of the Corporation depending on the goals and tasks of the holding companies and the Corporation as a whole.

At the end of the reporting period, based on the results of evaluating compliance with the key performance indicators, decisions are made regarding the payroll and incentive system for the management of parent organisations of holding companies, staff rotation and directors' development.





## 3.10 Corporate Governance

In the last few years, the Rostec State Corporation has built an efficient management system based on the use of typical models for the corporate governance of holding companies and directly controlled organisations.

The Corporation establishes holding companies on the basis of joint-stock companies where it has a shareholding interest, and ensures their development and carries out restructuring as per the growth interests of the property portfolio and the Corporation's Development Strategy.

In 2017, the Corporation continued the work of improving the corporate assets management system and developed and approved the respective statutes of the Corporation. The Assets Management Concept was updated and the Non-Core Assets Management Procedure was expanded upon. Holding companies implemented the plans for transforming the corporate governance system as per the differentiated approach to the corporate governance of holding companies pursuant to the decisions of 2016 under which all holding companies had been divided into the strategic, investment and operational management models.

In accordance with the Corporation's Development Strategy, in 2017 work continued to expand the authority and increase the responsibility of directors of parent organisations of holding companies for the operational and administrative activities of each holding company's organisations, strengthening the role of the boards of directors in the Corporation's organisations management.

The top-down approach towards solving major issues has been preserved. They include, among others, the reorganisation and liquidation of companies, change of the authorised capital, election of the CEO, payment of dividends, control over the implementation of the state defence order, approval of the budget and sale of non-core assets.

Apart from the changes aimed at improving corporate governance, the Corporation's assets structure is undergoing continual adjustment. The previous year was no exception – the holding companies' management structures have been reviewed, new joint ventures have

been established, and several existing production facilities have been optimised.

Additionally, the transfer of shares in the key production assets to the Corporation as a property contribution to the Russian Federation is still in progress. Special attention is paid to their operational integration in the structure and the business processes of the Corporation. In 2017, in the course of fulfilling the Decree of the President of the Russian Federation No. 1052 dated 10 July 2008 and the decree of the Russian Government No. 873 dated 21 November 2008, the Corporation became the owner of shares in Zdorovie Academic and Research Centre JSC and Moscow Radio Engineering Plant JSC.

Pursuant to the Decree of the President of the Russian Federation No. 132 dated 29 March 2017 and the decree of the Russian Government No. 732-p dated 19 April 2017, shares in nine aircraft repair plants were transferred to the ownership of the Corporation in 2017.

Pursuant to the Decree of the President of the Russian Federation No. 715 dated 27 December 2016 and the decree of the Russian Government No. 163-p dated 31 January 2017, the Corporation became the owner of shares in Murom Special Design Bureau JSC, Tomsk Electrical Engineering Plant JSC, Omsk Transport Engineering Plant JSC, Ural Design Bureau of Transport Engineering JSC, Engines Research Institute JSC, Ural Transport Engineering Plant JSC, Central Research Institute of Materials JSC, Burevestnik Central Research Institute JSC, Elektromashina Research and Manufacturing Association JSC.

Pursuant to the Decree of the President of the Russian Federation No. 580 dated 31 October 2016, shares in G. S. Petrov Research Institute of Plastics JSC were transferred into the ownership of the Corporation.

Pursuant to the Decree of the President of the Russian Federation No. 341 dated 26 July 2017 and the decree of

the Russian Government No. 1752-p dated 16 August 2017, the Corporation began acting in 2017 as a shareholder on behalf of the Russian Federation in Altair Installation and Technology Office JSC and Salut Special Design Bureau JSC.

Pursuant to the Decree of the President of the Russian Federation No. 554 dated 16 November 2017 and the decree of the Russian Government No. 2782-p dated 12 December 2017, the Corporation acts on behalf of the Russian Federation as the property owner with regard to the Atlas Scientific and Technical Centre Federal State Unitary Enterprise.

Pursuant to the decree of the Russian Government No. 324 dated 22 March 2017 and Ministry of Industry and Trade of the Russian Federation Order No. 3313 dated 27 September 2017, the Corporation acts on behalf of the Russian Federation as a shareholder in 17 joint-stock companies.

It should be specifically noted that the Corporation continuously studies the best national and foreign corporate governance practices, ensures conformance of the Corporation's statutes with changes in the legislation, increases the efficiency of corporate procedures and optimises its internal processes writ large. Thus, the corporate governance system of the Corporation is undergoing continuous improvement. The balance between the systematic shareholding control and the trust in the management bodies of subsidiaries is the basis of the Corporation's asset management system.

As in 2017, both the structure of corporate governance and the depth of the shareholding cooperation of the Corporation with the holding companies depends on the model that will be developed in 2018. Special attention is also being paid to the comfortable and effective integration of the assets transferred in 2017 into the existing standards and practices of the Corporation.

### Internal audit

The Internal Audit Department is directly controlled by the CEO of the Rostec State Corporation. The Internal Audit Department works in two areas:

- audit, inspections and methodologies of the Corporation's organisations;
- internal audit of the Corporation.

The main task of the first area ("audit, inspections and methodologies of the Corporation's organisations") is improving the performance of its organisations. In order to achieve this goal, the employees prepare recommendations upon completing of audits and inspections of financial and business activities and develop and control the introduction of the approved methodology.

In 2017, a procedure for the fair assessment of investment targets was carried out with regard to ten military division enterprises of Tractor Plants Corporate Management Company

Concern LLC. The financial and business activities of organisations of Uralvagonzavod RPC JSC were also inspected. The results of such efforts allowed the timely discovery of violations and the implementation of measures to mitigate the financial and reputational risks of the Corporation.

Significant work has been done over 10 years of the Rostec State Corporation's operations to arrange the asset management system. Primary attention was paid to the decriminalisation of business activities at the enterprises transferred to the management of the Corporation. Following inspections carried out by the Internal Audit Department, more than 200 criminal cases were initiated.

The main tasks are defined in the Corporation's Internal Audit Policy are:

- building the internal audit system, including the preparation of the internal audit strategy and developing and improving internal audit methodology;
- assessing the efficiency of the system for internal control, management of risks and corporate governance;
- providing guarantees to the users of internal audit services;
- consulting and assisting the Corporation's employees in the development and compliance monitoring of procedures and efforts aimed at improving the system for internal control, management of risks and corporate governance.

As of today, the integrated development of the internal audit function is one of the top priorities related to achieving the Rostec State Corporation's strategic goals. A centralised internal audit function has been formed within the Corporation and its organisations. An audit plan for each financial year is prepared pursuant to the Corporation's priorities. In 2016, KPMG JSC performed an analysis and assessment of the current activities of the Corporation's internal audit function and prepared practical recommendations that were later implemented in 2017 to improve such activities.

2017 was a key year for achieving internal audit tasks. The international audit unit has independently elaborated the internal audit methodology for the Corporation and its holding companies, including by-laws governing the compliance with the auditor's tasks as per the standards of the Internal Audit Institute. In 2017, the internal audit methodology was introduced in 13 primary holding companies of the Corporation whose overall revenue was 1.03 trillion rubles in 2016, as per IFRS.



*Risk management process stakeholders and their functions:*

**MANAGEMENT BOARD**

- approves the Risk Management System Policy (the Policy);
- approves the list of the Corporation's key risks;
- approves the model for management of the Corporation's key risks;
- approves the measures on managing the key risks;
- approves the acceptable (preferable) level of the Corporation's risk;

**CEO**

- accountable for efficient risk management;
- sets the tasks for the first deputy (deputies) CEO, the executive director and the heads of structural units of the Corporation and determines the way to complete such tasks;
- approves the register of the Corporation's risks;
- approves the reports on risk management and implements the respective measures;
- approves statutes and other documents of the Corporation related to risk management approaches developed in addition to the Policy.

**STRUCTURAL UNITS OF THE CORPORATION (RISK OWNERS)**

- implement the Policy and ensure the respective monitoring of compliance with its provisions as part of the accountable structural unit;
- identify and assess the risks inherent in their business processes;
- develop and shape the mechanisms aimed at minimising the respective risks that are reflected in the respective statutes of the Corporation;
- monitor inherent risks;
- implement the risk management measures within their scope of competence;
- determine the need for training subordinate employees regarding risk management.

**RISK COORDINATORS OF THE STRUCTURAL UNITS (RISK OWNERS)**

- coordinate the risk identification process within the respective structural unit;
- consolidate information on the risks of the respective structural unit;
- prepare the risk register for the respective structural unit;
- send the data sheets and the risk register to the CEO's administration.

**RISK AND INTERNAL CONTROL DEPARTMENT**

- coordinates the general risk management processes;
- develops and improves the risk management methodology documents;
- arranges training for employees of the Corporation and its holding companies regarding risk management;
- ensures methodological and consultation support to the Corporation regarding risk management;
- analyses the risk portfolio of the Corporation and identifies recommendations regarding the response strategy and reallocation of resources for risk management;
- develops and prepares consolidated reports on risk to present to the Management Board for review;
- makes decisions regarding the degree and depth of automation of the risk management system;
- monitors the risk management process implementation by the Corporation's structural units and holding companies, as well as the generally accepted accounting principles in terms of risks;
- notifies the Management Board about the efficiency of the risk management process and on significant deviations from the approved risk management processes.

**INTERNAL AUDIT UNIT**

- performs independent monitoring and assessment of the risk management system's performance.

**Risk Management System**

The Rostec State Corporation is interested in the timely identification of all risks related to its operations. For that purpose, the Risk and Internal Control Department was formed in 2017 and the Risk Management Policy has been updated and supplemented with a section on key risks. The work on development the statutory and methodological framework for risk management is also ongoing.

The list of key risks and the respective mitigation efforts have been prepared and the preferable (acceptable) level of the Corporation's risk has been determined.

Key risks are those that exceed the preferable (acceptable) level of the Corporation's risk based on the low probability of exceeding the acceptable deviation from the target numbers.

The main goals of the risk management system are:

- ensuring reasonable guarantees of achieving the Corporation's goals defined in the development strategy;
- efficient and productive use of resources;
- accuracy of the accounting (financial) statements and management reports;
- compliance with the applicable legislative acts and statutes.

**Organisational changes in 2017**

The risk management and internal control function was strengthened, and the risk and internal control audit was formed, as efficient development and introduction of the risk management process is an important element in achieving the Corporation's goals.

As the development priority for the next 10-15 years will be a shift to advanced digital technologies, robotic systems and design methods, big data processing systems, machine learning and artificial intelligence, the Corporation has introduced the position of the Managing Director for Science and Technology.





## 3.11 Corporate finances and Treasury activities

### Corporate finances

The key role of the Corporation's funds as a mechanism for the targeted reallocation of money among clusters and holding companies was strengthened in 2017.

As at the beginning of the year, the scope of money focused in the Corporation's targeted funds reached 19.3 billion rubles.

A portion of the Corporation's profits for 2016 was allocated for additional capitalisation in 2017 worth 24.5 billion rubles, i.e. 87% of the money received by the Corporation as dividends from organisations. This reflects the fact that the task of focusing the clusters' resources for their further reallocation among the targeted funds has been achieved.

The Corporate Centre made decisions about financing the top-priority projects based on investment needs and the Corporation's tasks regarding anti-crisis management, financial rehabilitation and financing the social programmes to a total value of more than 18.7 billion rubles (about 9.5 billion rubles were allocated for that purpose in 2017), without regard to financing the investment projects of UEC JSC pursuant to the decree of the Russian Govern-

ment No. 1019-pc dated 26 May 2016 out of the money received from the sale of copper-containing resources that had been received as a property contribution of the Russian Federation to the Corporation.

Thus, 76% of the money from clusters reallocated for additional capitalisation in 2017 were used through the funds for purposes of financing top-priority projects and the targeted financial support for the Corporation's organisations.

The mechanism for reallocating financial resources among clusters and holding companies has also been developed and implemented on the basis of a special vehicle of the Corporation, RT-Finance JSC, the Corporation's pool leader in charge for financing matters.

In 2017, RT-Finance JSC significantly increased the scope of intragroup financing (borrowing and lending from and to organisations of the Corporation) in the course of fulfilling the task of increasing the efficiency of managing the Corporation's idle funds.

The average monthly scope (portfolio) of loans borrowed by RT-Finance JSC has grown from 7.5 billion rubles (quarter 1 of 2017) to 13.5 billion rubles (quarter 4 of 2017). RT-Finance JSC borrowed funds from the Corporation's organisations at the rates consistent with the highest rates of competent banks, which allowed the Corporation's organisations to ensure the maximum efficiency of allocation of idle funds and maximise the income.

The average monthly scope of loans granted by RT-Finance JSC has grown from 195 million rubles (quarter 1 of 2017) to 587 million rubles (quarter 4 of 2017).

Loans to the Corporation's organisations were granted at the rates below those of competent banks, which allowed the Corporation's organisations to save significant amounts in terms of interest payments. The aforementioned indicators reflect the positive dynamics of utilising the intragroup financing as a mechanism for reallocating resources among clusters and holding companies.

In 2017, the Rostec State Corporation initiated the development of information analysis resources of the financial unit for purposes of increasing the quality and speed of the decision-making process as part of the financial management system of the Corporation.

A project for automating the following business processes is being implemented with due regard to the Corporation's tasks and functional characteristics of the system: management of financial flows and liquidity, managerial accounting and budgeting, procurement management and contractual activities management.

The Rostec State Corporation, Russian Helicopters JSC, UEC JSC, Technodinamika JSC, RT-Inform LLC and RT-Komplektimpex LLC were selected for the pilot project implementation. In the event of successful implementation, the pilot project will be implemented across all organisations of the Corporation.

Creating an automated system for managing the Corporation's finance and procurement activities will significantly advance the optimisation and synchronisation of the budgeting, investment and procurement processes, increase the efficiency of finances' management and ensure the approximation of the budgeting structures and IFRS and reallocation of financial resources among clusters.

The necessary measures for automating procurement activities have been scheduled under the project. Results of such measures will be used for developing the nationwide Unified Procurement Information System.

### Treasury's activities

In 2017, the Rostec State Corporation continued the work of increasing the efficiency of cash flow management as part of the Single Corporate Treasury (SCT) by:

- establishing transparent procedures for the treasury's business processes (including by carrying out financial transactions, liquidity planning and management), forming a system for managing financial risks of the Corporation and its organisations, etc. as defined in the respective rules of SCT;
- automation of the treasury's key business processes through the Single Corporate Treasury's Automated System (SCT AS);
- interaction with external organisations for purposes of improving the banking servicing terms, optimisation of interaction with the Federal Treasury and the Ministry of Defence of the Russian Federation regarding the implementation of the state contract and efficiency of utilisation of the targeted funds by the Corporation.

### Methodology for fulfilling treasury operations

The Rostec State Corporation has developed and introduced a centralised Treasury system implemented vertically in the direction "Corporation – Corporation's Holding Company – Holding Company's organisation" that fulfills the requirements and procedures approved by the unified methodological documents of SCT for all primary treasury business processes.





The phases of the project for establishing the unified centralised Treasury of the Corporation being implemented today allow for the reallocation of funds among holding companies, the monitoring of compliance with the budgets of the Corporation's organisations on the Corporation's level, etc.

In 2017, all business processes governed by the effective rules of SCT were improved, including the following:

- transactions aimed at borrowing external funds for selecting the most efficient sources of financing for various categories of expenses of the Corporation's organisations, including those effected via the mechanism for centralised borrowing of funds and by defining the credit and documentary limits with the competent banks with regard to the Corporation and its organisations;
- intragroup financing operations both by the Pool Leader of the Corporation, RT-Finance JSC, and by local pool leaders in terms of changing the approach to the methodology for intragroup financing.

Regarding the process for the preliminary planning of receipts and payments as per the Regulations for the Timely Planning and Management of Liquidity of the Corporation and its Organisations, the Corporation has elaborated a new efficient mechanism for managing liquidity based on the utilisation of the target balancing mechanism (accumulation of cash balances of organisations on a single account). In 2017, this technology was put into test operation at a pilot holding company.

### Automation of the treasury's business processes

The automation of the treasury's business practices of the Rostec State Corporation and its organisations is carried out on the basis of a centralised methodological and information technology solution and by introducing an IT system to all organisations that can be integrated with the payment systems of the servicing banks – Single Corporate Treasury's Automated System (SCT AS).

In 2017, the work on improving the functionality of SCT AS continued. As of the end of 2017, the six main business processes of the treasury have been automated: credits, deposits, minimum required balance, balance interest, documentary transactions (bank guarantees) and personal accounts with the Federal Treasury Department.

The work on fine-tuning the automation of the key business processes of the Treasury and their improvement are carried out on a continuous basis.

In 2017, the module for managing the liquidity of the Rostec State Corporation and its organisations was developed and prepared for deployment as part of the automated system for financial and procurement activities of the Corporation and its organisations (AS FPA).

### Interaction with external organisations

#### Banks

To ensure the integrity of cash of the Rostec State Corporation's organisation and reduce the bank expenses of the Corporation's Treasury, work continued in 2017 for the accumulation of cash and transactions of the Corporation's organisation into more reliable and financially steady banks. Work continues to optimise cooperation of organisations with the servicing banks for improving financial transactions' terms for the Corporation's organisations, reducing the term for communication by the banks of the terms for financial transactions and other events.

Work has continued in the following fields:

- harmonisation and introduction of single discounted servicing rates for the Corporation's organisations at certain banks;
- increase of efficiency of utilisation of the Corporation's funds;
- reducing interest rates and optimising covenants under credits of the Corporation's organisations (the Corporation managed to save more than 4 billion rubles solely on the Corporation's level by prior approval of credit agreements and bank guarantees, without regard to the comprehensive work with the banks on improving the servicing terms and reducing the organisation's expenses).

#### Federal Treasury

In 2017, the Rostec State Corporation's Treasury ensured efficient treasury support for the Corporation's transactions; certain procedures for interaction with the Federal Treasury were improved with regard to the matters of opening and servicing personal accounts of the Corporation with the Federal Treasury Department (FTD) for the city of Moscow, and authorisation of the transactions carried out by the Corporation. In addition, the Corporation's Treasury has arranged continuous control and monitoring of timely financing of the federal and governmental programmes by centralised administration of the federal budgetary funds transactions which are carried out through the personal accounts of the territorial bodies of the Federal Treasury using SCT AS.

### Management of financial risks

Under the current conditions, one of the main type of risks faced by the Rostec State Corporation and its organisations are financial risks whose management system has already been deployed and utilised in the Corporation. The financial risk management system (FRS) of the Corporation and its organisations is part of SCT and the general risk management system. A unified methodology and standards framework for managing various types of financial risks has been formed under SCT for the Corporation and its organisations: credit, currency, interest, liquidity risks and risks inherent to the placement of idle funds of the Corporation and its organisations.

Overall, each business process of SCT in the direction "Corporation – Corporation's organisation" is built in such a way so as to manage the respective financial risks. FRS and SCT are integrated into the Corporation's management system so as to allow assessment and minimise financial risks in the course of managerial decision-making by the Corporation's governing bodies.

FRS has a set of tools for managing the following financial risks:

- credit risks related to loans and suretyships granted;
- credit and market risks related to the placement of idle funds;
- credit risks related to possible default on obligations by the Corporation's and its organisations' suppliers of products and services. An institute of guarantor banks whose guarantees are used as a security for the contractual obligations of suppliers has been introduced at the Corporation and its organisations;
- currency risks – the currency position of the Corporation's organisations is being calculated and assessed.





## 3.12 Scientific activities

### Implementation of the research and technology advancement (RTA) programme

In 2017, a process for preparing the Forecast for the Development of Science, Equipment and Technology in the Fields of the Corporation's Activities Through 2030 and Beyond (hereinafter referred to as the 2030 Forecast) has been launched under the 2020 RTA Programme.

The level of technological advancement of the holding companies (HCs) and directly controlled organisation (DCOs) of the Corporation is being assessed by various studies. In particular, a comparative analysis of the current and estimated scientific and technological level of organisations with regard to similar national and foreign companies will be carried out. Comparison will be made both in terms of product technologies and underlying industrial technologies. The 2030 Forecast is expected to be prepared and approved by the end of 2018.

The 2030 Forecast will be used to determine priorities of scientific activities of the Corporation and to prepare the list of critical estimated scientific results for the period through 2030 for the purpose of developing technologically advanced and innovative products.

Most innovative products that ensure today the Corporation's competitiveness in the global market for innovative products have been created as a result of research and development work. A significant number of R&D results will allow the Corporation to maintain its leading positions in the market for technologically advanced and innovative products.

Developing and introducing advanced products and production technologies will allow the Corporation's enterprises to ensure necessary rates of technical and technological re-equipment of production facilities.

Pursuant to the Rules for the Development and Implementation of the State Arms Programme, a forecast for the next 15 years has been prepared with regard to the advancement of science and defence equipment. This forecast strives to articulate a scientific and technology basis for realising the Main Fields of AMSPE (Armaments, Military and Special-Purpose Equipment) Development and other documents for preparing the state arms programme. The forecast ensures the opportunity to identify current development trends in science, equipment and technologies, and prepare scientifically substantiated proposals for developing national AMSPE items.

In 2017, the consolidated proposals were developed regarding the draft State Programme of the Defence Industry Sector's Development in 2017-2018 in terms of R&D for development of basic and critical industrial technologies and investment projects for the deployment and technical re-equipment of production facilities. These proposals include about 580 efforts for developing and introducing basic and critical industrial technologies.

### Implementation of the Corporation's innovative development programme

In 2017, the programmes for innovative development (PIDs) of 15 holding companies and directly controlled organisations of the Corporation were revised and approved by federal executive authorities (Ministry of Industry and Trade, Ministry of Economic Development and Ministry of Education and Science of the Russian Federation) and boards of directors of the holding companies. The Corporation's 2020 PID has been updated following approval by the federal executive authorities, the inter-agency commission for technology advancement of the Presidium of the Council of the President of the Russian Federation for economic modernisation and innovative development, and the Supervisory Board of the Corporation.

In 2017, the main programme events of PID sought to solve the following main problems:

- mastering new competences and advanced training of employees involved in innovative development efforts;
- applied research and development, primarily to ensure the fulfilment of FTPs and SDOs;
- development and deployment of advanced industrial technologies and innovative products;
- technological upgrade of organisations for the purposes of creating and producing competitive technologically advanced products with new consumer properties;
- mastering new technologies to increase the efficiency and environmental friendliness of production facilities, deployment of new quality control systems;
- building a modern infrastructure for innovative activities at the level of the Corporation, its holding companies and organisations;
- building a system for the commercialisation of promising technologies of the Corporation's organisations and intellectual property rights;
- engaging higher education institutions and small and medium business companies in the implementation of innovative projects of the Corporation's organisations;
- establishing cooperation with national development institutes and investment funds.

In 2017, R&D work was carried out in the top-priority fields of innovative development for the Corporation's organisations. A significant portion of R&D was implemented by the Corporation's organisations under the State Defence Order and the Federal Targeted Programmes, meaning that the innovative activities of the Corporation's organisations are still focused on R&D for governmental needs. In 2017, R&D costs were 110 billion rubles, including about 40 billion rubles of the Corporation's organisations own and borrowed funds.

Technological upgrade efforts were aimed at extending the technology capabilities of the Corporation's organisations, reducing production costs and growing labour performance and product quality.

160 innovative products and 120 innovative technologies have been created based on R&D and technological upgrade efforts. 60 basic and critical industrial technologies developed by the Corporation's organisations have been introduced. 150 foreign industrial technologies have been introduced (localised) at the Corporation's organisations, 870 patents and 1,300 know-how procedures have been obtained, 200 intellectual property rights have been sold and 140 intellectual property rights have been purchased.

In 2017, the Corporation's revenue from the sale of innovative products was 630 billion rubles (44% of the overall revenue of holding companies and organisations involved in the PID), including revenue from the sale of civilian innovative products worth 110 billion rubles and revenue from exports worth 225 billion rubles. As compared to 2016, revenues from the sale of innovative products under the PID grew in 2017 by 15.8%, including: revenue from the sale of military innovative products grew by 22.4%; revenue from the sale of civilian innovative products grew by 29.9%; revenue from the export of innovative products grew by 23.4%.

Significant efforts of innovative units were focused on building an efficient system for managing innovative activities on three levels (the Corporation, holding companies and organisations of the Corporation), and on forming the "innovative team" of the Corporation, including the First Deputy CEO of the Corporation, the chairman of the Scientific and Technical Council of the Corporation, deputy directors of holding companies in charge of innovative development, directors and employees of structural units in charge of innovative development of the Corporation, its holding companies and its organisations.

In 2017, the Corporation updated the corporate regulatory and methodological documentation dedicated to PID management to improve the innovative development management system.

In the reporting period, significant attention was paid to the promotion of the commercialisation of the Corporation's advanced developments as part of small- and medium-sized innovative business based on a wide use of open innovation mechanisms and implementation of pilot projects within the holding companies for the purpose of building the corporate innovative infrastructure. R&D cooperation among the Corporation's organisations with higher education institutions and scientific organisations also continued.

Serious efforts were made to further introduce the open innovation model in the practical activities of the Corporation's organisations from the elements of the innovative infrastructure (the system for management of innovative competences, the open innovations centre, etc.).

The Open Innovation Centre (OIC) of the Corporation formed by the corporate departments of the G.V. Plekhanov Russian University of Economics provides assistance to the organisations for the introduction and development of open innovation systems and their components through research, consulting, educational, communications and other programmes and efforts, including the preparation and support of the respective management decisions.





## Cooperation with higher education institutions and scientific organisations

Throughout 2017, holding companies and organisations of the Corporation actively partnered with higher education institutions for staff training and applied scientific and R&D work. About 380 dedicated departments have been opened by the Corporation in Russian higher education institutions. In 2017, 8,500 employees of the Corporation underwent retraining and advanced training programmes in higher education institutions. Higher education institutions and scientific organisations were engaged as joint contractors in research under the state programme or ambitious R&D work. The costs of such research and development work in 2017 amounted to 4.5 billion rubles.

As expected, 2018 will see the creation of master's and postgraduate schools for each field of the "end-to-end" technologies at the leading higher education institutions and scientific organisations, and targeted financial support will be given to postgraduate and master's schools as part of the Digital Economy of the Russian Federation programme approved by the Russian Government and the Action Plan for Improving Research Competences and Technology Capacities, as approved by the Governmental Commission for Improving Quality of Life and Business Conditions. The Rostec State Corporation and the Rosatom State Corporation have been selected as contractors in these programmes.

Today, the coordination of all stakeholders is especially important for concentrating resources in order to fulfil the current tasks of the digital economy's development.

Competence centres headed, respectively, by director for special commissions of the Rostec State Corporation V.Y. Brovko and first deputy director, director of the development and international business function of the Rostec State Corporation K.V. Komarov have been established for that purpose.

In 2018, the work of the design office for research competences and technology capacities should begin. The research function of the design office will include the leading engineering and economic higher education institutions of Russia. Today, the Corporation jointly with higher education institutions is reviving the intellectual and scientific culture of professionals as manifested by growing interest in new technologies.

Pharmacology and biomedicine are particularly important fields for developing competencies for the Corporation. These are advanced, fast-growing and promising fields of the economy. Today, the development of biomedical science in Russia for innovative pharmaceutical products and therapeutic and diagnostic technologies depends on solving several systemic problems. First of all, there is no coordination between the units involved in fundamental research on pharmaceutical products and the

pharmaceutical companies producing such products. This problem is aggravated by the lack of specialists capable of inventing and promoting in the market Russian-made innovative drugs and technologies.

Solving these problems requires new approaches to arranging the pharmaceutical products' development work so as to ensure the full cycle of creation and market launch of authentic domestic products. In this regard, the decision was made to establish the Centre for Immunology and Molecular Biomedicine (the Centre) at the biological faculty of the Lomonosov Moscow State University. Its main task will be to create an efficient scientific and educational environment capable of developing innovative products for medicine and agriculture.

The Centre's operation may be integrated in the staff and advanced training system for the biomedical and bi-engineering fields as part of the higher vocational education at the biological faculty of the Lomonosov Moscow State University. The full-scale functioning of the Centre will enable the launch and implementation of applied scientific research in the fields of immunology and molecular biomedicine, the transfer of innovative biomedical technologies for their commercialisation and the facilitation of scientific and organisational events in order to ensure the bio-security of the Russian Federation.

The Board of Trustees of the Pirogov Russian National Research Medical University has been established for the same purpose. The elected chairman of the Board of Trustees is S.V. Chemezov, CEO of the Rostec State Corporation. The Corporation's top management expects to expand cooperation with the University for training, retraining and advanced training primarily of specialists of National Immunobiological Company JSC and its member, Microgen Scientific and Production Association JSC.

The University's cooperation with the National Centre for Informatisation LLC, which has many competences in the IT field, will be developed under the Digital Healthcare state programme.

The traditional task of training and advanced training of employees of the Rostec State Corporation through the Management of Innovative Development of Partially Government-Owned Companies programme at the dedicated departments of the Plekhanov Russian University of Economics and the Peoples' Friendship University of Russia has been preserved.

The programmes to support talented school students, college students, postgraduates and young scientists comprising the workforce potential of the innovative economy of Russia have been actively developed. For example, Microgen Scientific and Production Association JSC has jointly with the biological faculty of the Lomonosov Moscow State University implemented two scientific and educational project at the Moscow State University's Gymnasium:

- bacteriophages (the project's goal is to select the most promising drug formulations for bacteriophage-based products);
- allergens (the project's goal is to create new and in-demand "cocktails" of allergens and to determine their efficiency, increase the stability of existing drugs and standardise untested procedures).

The projects are designed for 11th-grade students.

The Corporation's specialists are actively involved in implementing and improving master's programmes. Many scientific articles are being prepared for publication in magazines indexed by Scopus, Web of Science, the Russian Science Citation Index and included in the list of the higher attestation commission.

Special attention is paid to third-party open R&D tenders aimed at increasing the efficiency of the work of the Corporation, research institutes and higher education institutions. A good example is the Far Eastern Federal University (FEFU), a flagship of Russian education in the Pacific region. By participating in the programmes for innovative development of the Russian Far East and by ensuring the training of qualified staff specialising in solving modern scientific and production problems, FEFU has become the leading centre for international cooperation in the Asia-Pacific region.

FEFU has won a tender for governmental support for centres of the National Technology Initiative (NTI) in the fields of neurotechnology and virtual and augmented reality technologies. End-to-end technologies in the fields of neurotechnology, virtual and augmented reality technologies are a basis for the Neuronet market formation. The NTI Centre established at FEFU as an engineering and educational consortium implements research programmes aimed at overcoming the technology gaps of NTI's roadmaps in cooperation with industrial partners.

The cooperation of the Corporation and leading higher education institutions will efficiently solve current problems related to the creation of innovative platforms to significantly speed up the process of developing technologically advanced military, dual-use and non-defence products that are competitive in both domestic and global markets.





## 3.13 Brand and communications

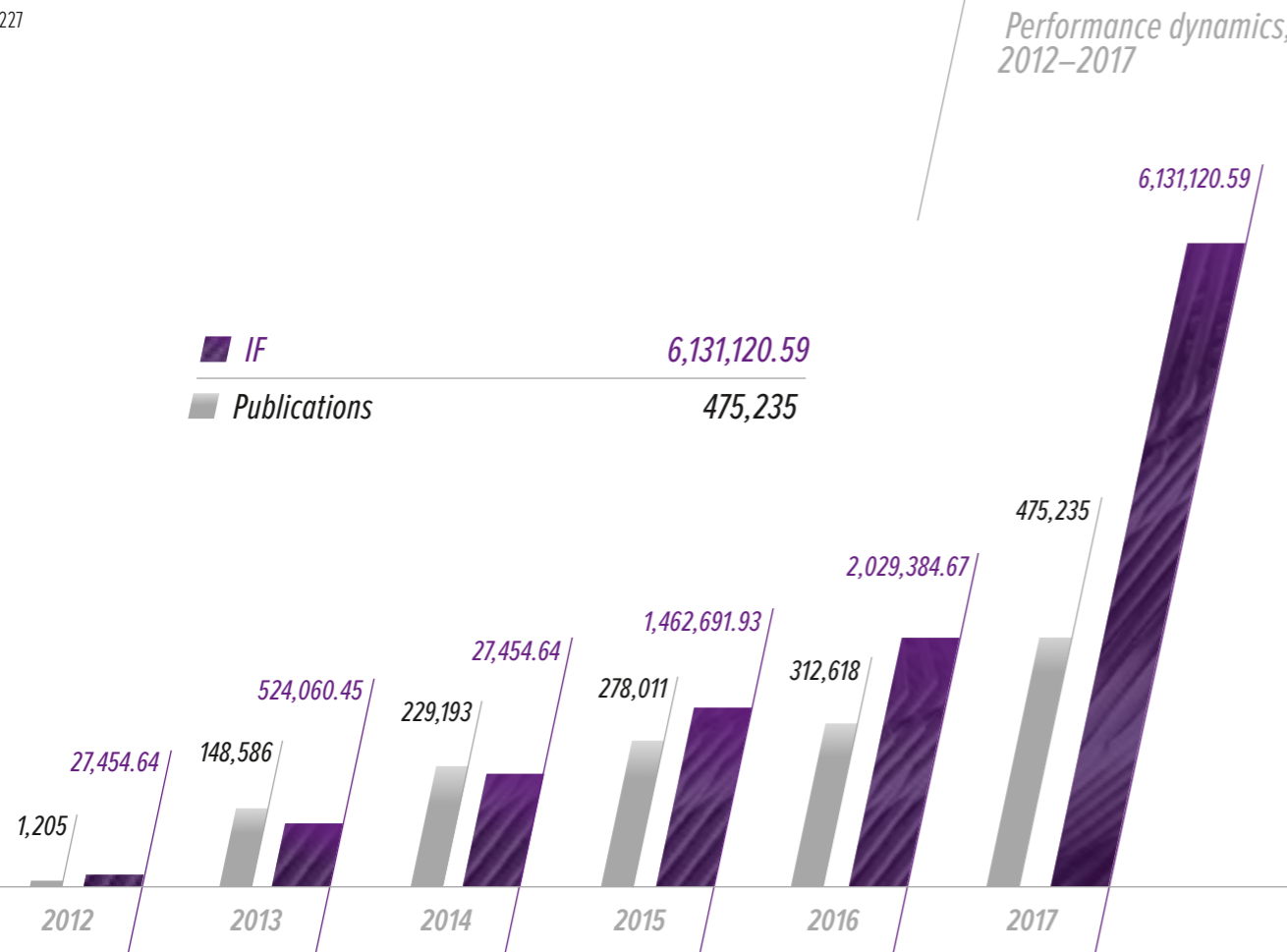
Building brand awareness, cultivating its reputation and making the Corporation's name meaningful as per the new development strategy are the key tasks of the Rostec State Corporation's communication policy.

The Corporation is actively expanding its presence in the information realm by making its work more open and transparent for the government, its partners and the community in general. Information about key events, such as scientific and production achievements, transactions, managerial decisions and other material facts is communicated on a daily basis.

In the reporting period, the media service carried out the entire package of efforts aimed at information promotion of the Corporation, including formation of the current media agenda, processing mass media enquiries and communicating to journalists expert opinions, comments of directors and specialists regarding the Corporation's profile issues.

Various work formats were used to ensure maximum coverage of the Corporation's activities, including interviews with top managers, access for mass media to the enterprises, press events involving the officials of the Corporation and its organisations.

Performance dynamics, 2012–2017



### Key Performance Indicators

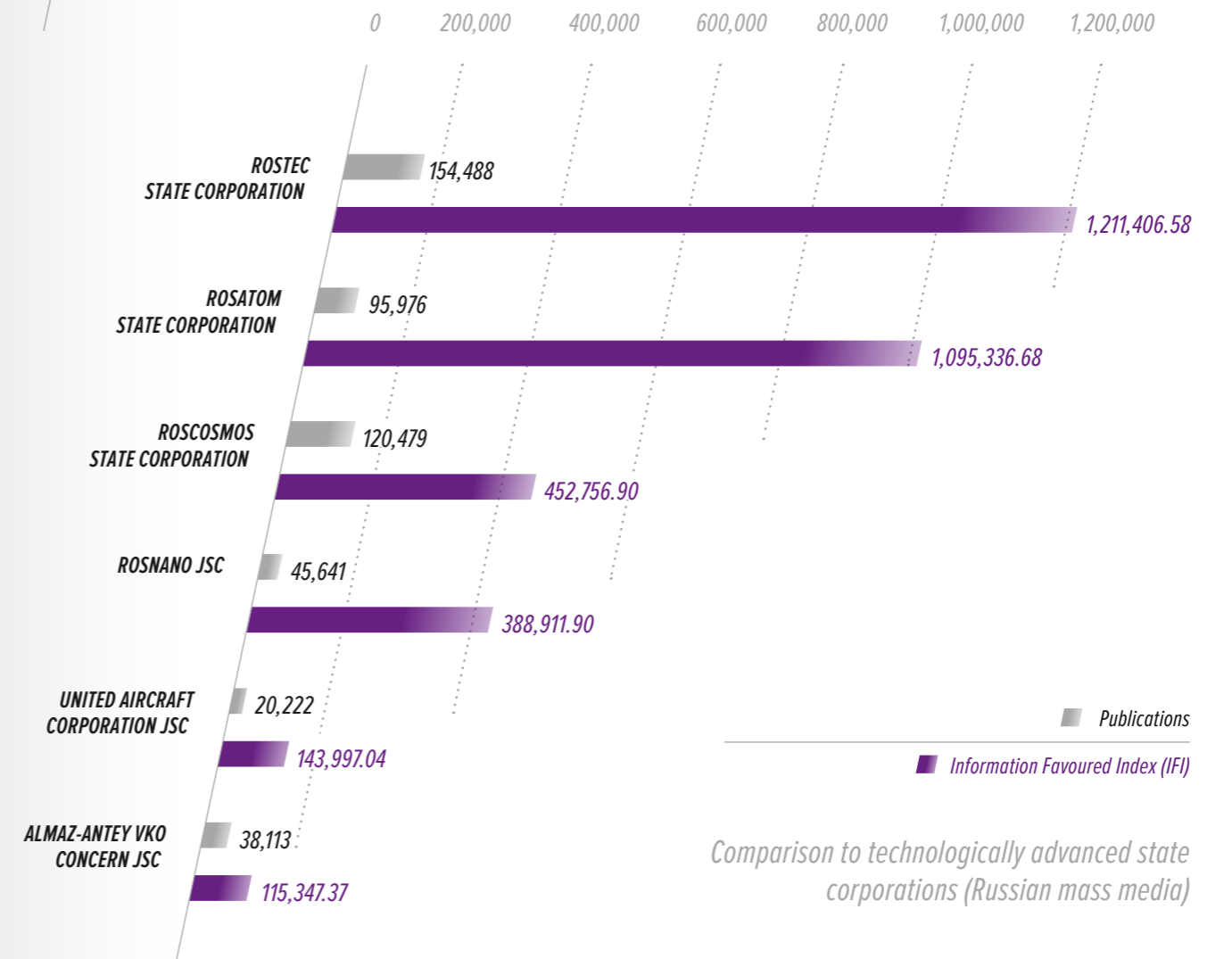
The focus on information openness caused growth in media exposure of the Corporation and its holding companies in 2017 by 52%: 475,235 publications in Russian and foreign mass media were recorded in the reporting period. The total media index indicating the positive perception, awareness and strength of the Corporation's brands has grown by more than three times. Media index growth and number of references.

The Rostec State Corporation has been continuously seen in the information realm in the recent years, and the dynamics have been

constantly growing. This confirms the fact that a positive image of the Corporation has formed in the media space in recent years.

The success of the awareness-building efforts has ensured the Corporation's leading positions in the rating of the largest technologically advanced corporations of Russia, as calculated by Medialogy LLC for several years in a row.

Media index of technologically advanced Russian corporations



Comparison to technologically advanced state corporations (Russian mass media)



### Corporate website and social media

One of the main communication channels of the Rostec State Corporation is its corporate website where about 5,000 items of new content have been published in the reporting year (text news, documents, photographs, infographic materials, videos). High-quality and timely support has prompted great interest in the official site, with approximately 4.7 million people visiting it in 2017.

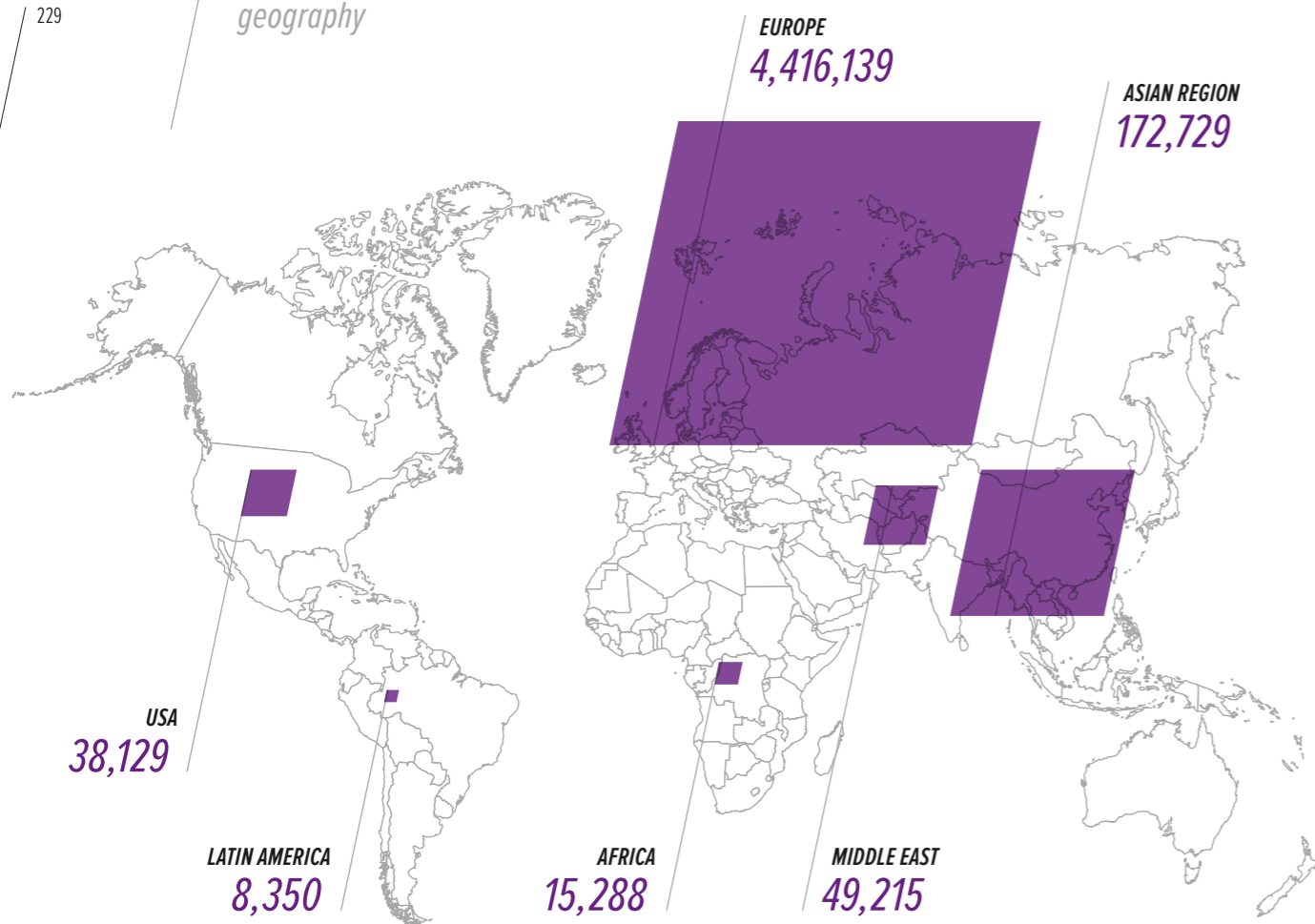
The number of subscribers to official social media accounts regularly publishing the news on the Corporation's life has also grown significantly: number of subscribers in 2017 exceeded 791,000 people, i.e. 32% higher than in the previous year.

### Media activity of holding companies

Awareness-building efforts of the Corporation's organisations are carried out in compliance with the External Communications Rules. The document describes the standards and rules for working with mass media, outlines a single information agenda across the Corporation, and defines the KPIs in the communication sphere for holding companies and directly controlled organisations of the Corporation. Thus, the Rules are an efficient tool for increasing the level of openness while building a positive image of the Corporation's organisations among the target audience.

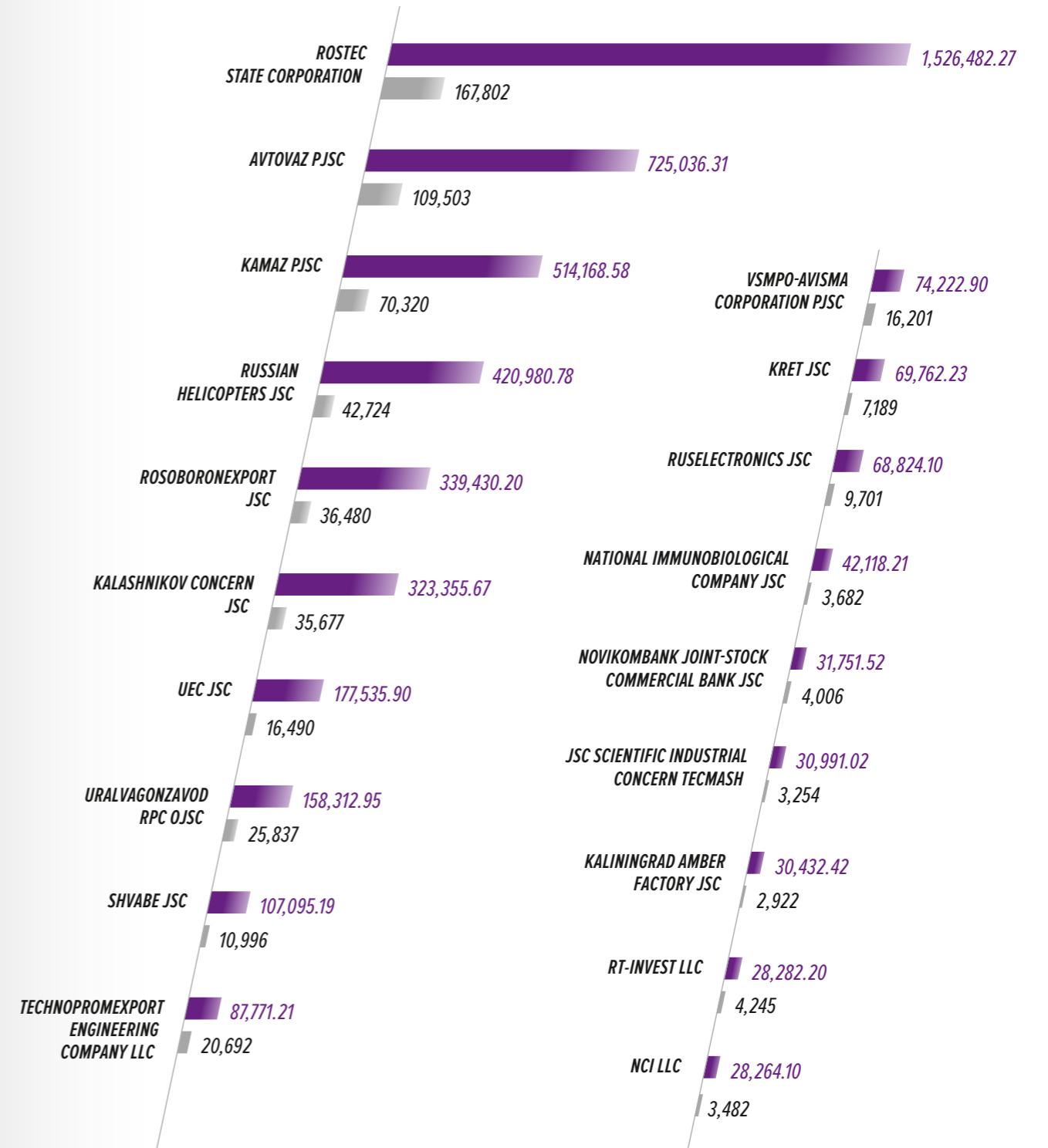
The level of the communication work of the Corporation's organisations is reflected in the annual media rating. At the end of 2017, the Rostec State Corporation took first place as the underlying brand with a wide information agenda.

Website visitors' geography



### Media rating of the Rostec State Corporation's organisations at the end of 2017

Just like a year ago, AVTOVAZ PJSC took second place, and another automotive brand of the Corporation, KAMAZ PJSC, took third place. The Top-10 also included Helicopters JSC, Rosoboronexport JSC, Kalashnikov Concern JSC, United Engine Corporation JSC, Uralvagonzavod RPC JSC and Shvabe JSC. National Immunobiological Company JSC and Technopromexport Engineering Company LLC improved their ranks. For the first time ever, the 2017 media rating included RT-Invest LLC.





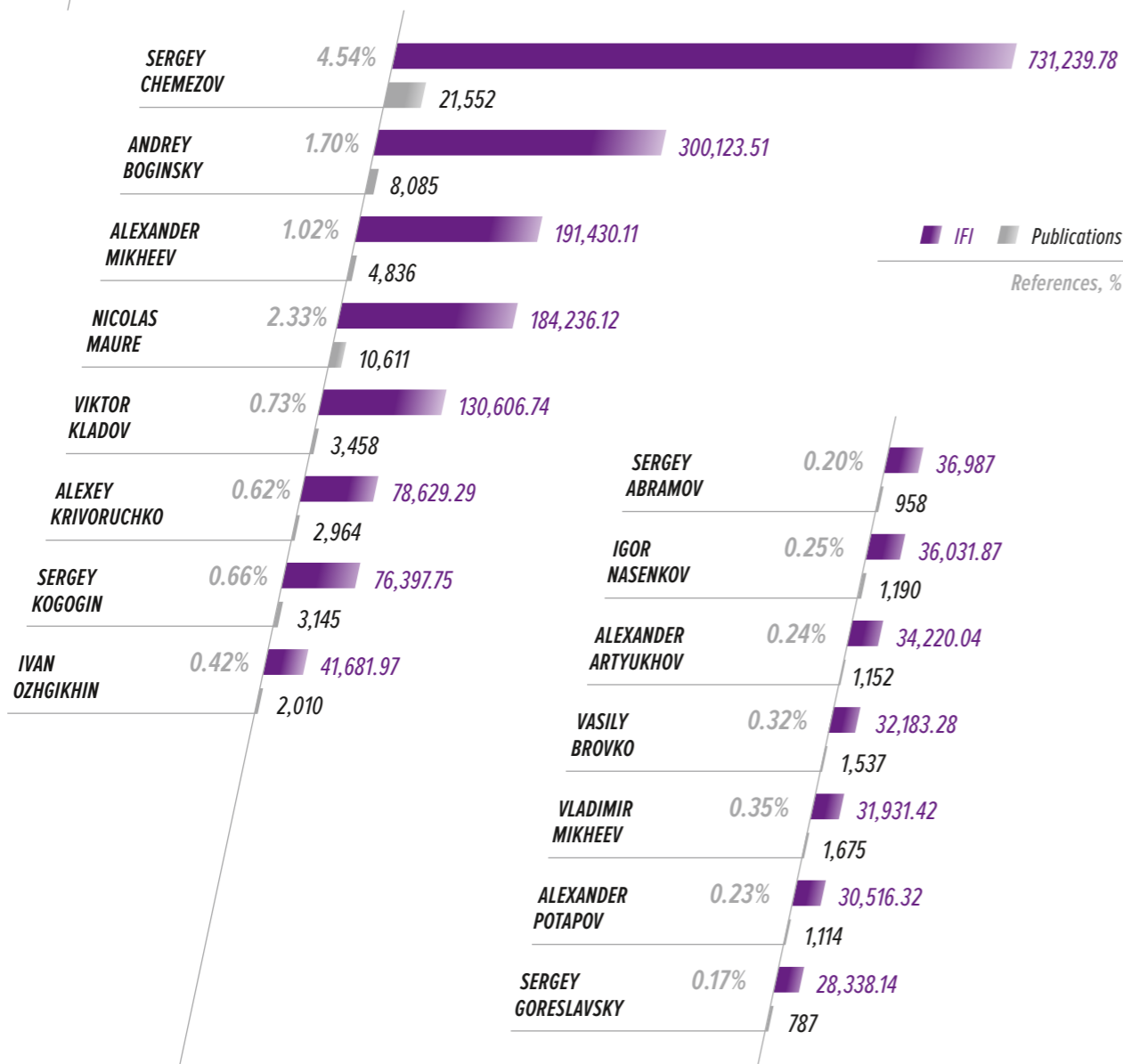
## Corporation spokesmen and speakers

The continuous inclusion of top managers of the Rostec State Corporation and its holding companies in the communication agenda is one of the conditions of information openness.

During 2017, the directly controlled organisations of the Corporation's organisation actively cooperated with mass media, answering the questions of journalists and discussing the organisations' work. In the reporting period,

there were more than 64,000 positive and neutral publications containing references to the top management of the Corporation and its holding companies. Publications with references to the CEO of the Rostec State Corporation S.V. Chemezov comprise about 30% (21,600 publications). Across the year, S.V. Chemezov repeatedly gave interviews, communicated with journalists at press conferences and briefings and spoke at public events covered by the media.

Publicity rating of the Corporation's spokespersons (Russian and foreign mass media)



The high degree of representation of the Corporation's spokesmen in the information space remains one of the main reasons for the growing media index and number of publications. As demonstrated by the information realm analysis, statements by top managers are a key source of publicly available information on the Corporation, and they are a key factor in its image building.

## High-profile events and newsworthy events

The main event of 2017 was the Corporation's anniversary: this date was marked by public events and a high activity of mass media activity primarily aimed at discussing the results of the first 10 years of the Corporation's existence.

*"We have done significant work to upgrade all enterprises that possess advanced equipment and machinery, which allows us to produce highly intelligent, in-demand products both in Russia and abroad."*

S.V. Chemezov  
(from his speech at the Federation Council)

2017 was a landmark year in the coverage of the Corporation's activities. Most attention was focused on newsworthy events related to advanced developments, and the significant growth of media indexes was achieved through attention to non-defence products that have gained more attention as per the new Development Strategy of the Corporation. One of the most prominent areas of media attention came from the Corporation's participation in the digitalization of the Russian economy.

*"Our solutions are applied in e-government, secure data storage systems, e-healthcare and e-learning, "smart" infrastructure of cities, robotics, medical equipment and many other fields. These are the key fields for our development and entry into new markets according to the Corporation's Strategy."*

S.V. Chemezov  
(from his interview in the Kommersant newspaper)

In 2017, the publications referencing the efforts aimed at developing the civilian sector (automotive industry, digital economy, modernisation) surpassed the number of references and prominence of the publications dedicated to the defence industry sector (military and technical cooperation, state defence order implementation, production and development of arms).

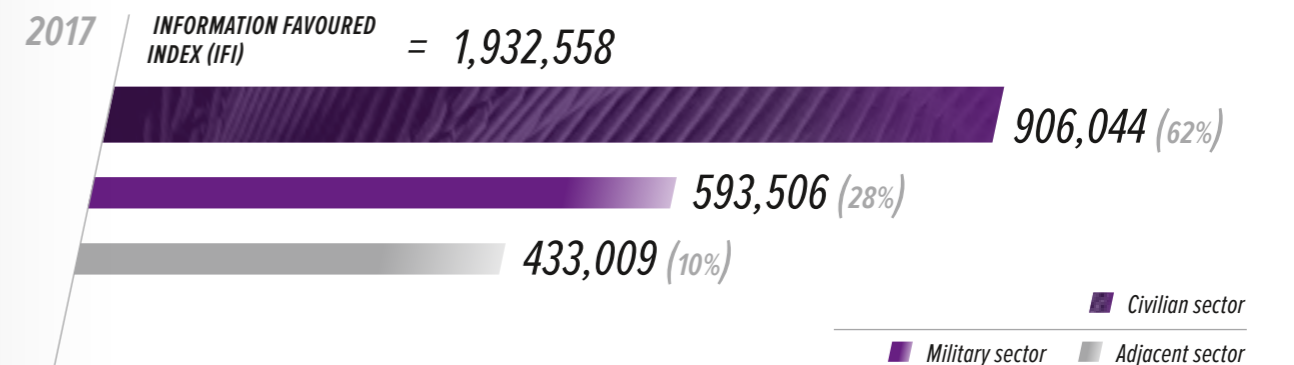
The development of the public-private partnership by Kalashnikov Concern JSC, Russian Helicopters JSC, Ruselectronics JSC, High PRECISION Systems JSC and Technodinamika JSC also attracted wide coverage.

Collectively, most of the media attention in 2017 focused on promoting the strategic lines of the Corporation's business. The predominance of civilian topics over military ones in the information realm at the end of the reporting year confirmed a shift of focus in the information agenda of the Rostec State Corporation that accurately reflects the changes going on within the Corporation.

Another significant reason for the media index growth in 2017 was the promotion of the Corporation's products in domestic and foreign markets, as well as participation in industry-related events and exhibitions.

The traditional Digital Industry of Industrial Russia (DIIR) forum took

Distribution of publications by sectors as per the analysis of the top-150 newsworthy events





place with the support of the Corporation. The forum gathers the key players and experts of the IT industry in Innopolis (Republic of Tatarstan). For the second year in a row, the Biotehmed dedicated biomedical technologies conference was held in Gelendzhik.

### SPIEF 2017

The Corporation participated in the Saint Petersburg International Economic Forum (SPIEF 2017) and presented a key aspect of Russian industry's current development – a shift to the digital economy. The Corporation's exhibition stand, called "Rostec on the Cutting Edge of the Digital Economy", showed the key eco-system projects of the Corporation that will become the primary aspects of the development of the Corporation's civilian segment and growth of revenue in the next few years: smart city, e-healthcare and automated control systems. An announcement was also made at the Forum that the Corporation and the Bank for Development and Foreign Economic Affairs (Vnesheconombank) State Corporation would establish an agency for carrying out a series of other civilian projects.

### INNOPROM 2017

In 2017, the Corporation also participated in the Eighth International Exhibition INNOPROM 2017, where it presented a conceptual stand dedicated to transferring military technologies into the civilian sector. The exhibition stand presented medical equipment produced by the Corporation, personal computers based on the Elbrus microchips, computational systems, Lada cars, models of civilian helicopters Mi-26T2 and Mi-171A2 and other developments of the Corporation's holding companies. More than 130 items developed by the Corporation were on display at the exhibition.

### MAKS 2017

The Corporation presented a wide range of advanced civilian and military products at the MAKS-2017 Aviation and Space Salon and the Army-2017 Forum. Conceptual (in terms of design and development technologies) products were demonstrated at the Future-Oriented Russia Exhibition.

In 2017, the coverage of events aimed at developing the potential workforce and increasing the occupational prestige of blue-collar workers continued (WorldSkills championship of blue-collar workers, Engineer of the Year, etc.). The participation of experts and a school team sponsored by the Corporation at the Yaroslavl Projectory Forum, which was visited by the President of the Russian Federation V.V. Putin, was one of the most prominent events.

### References in international mass media

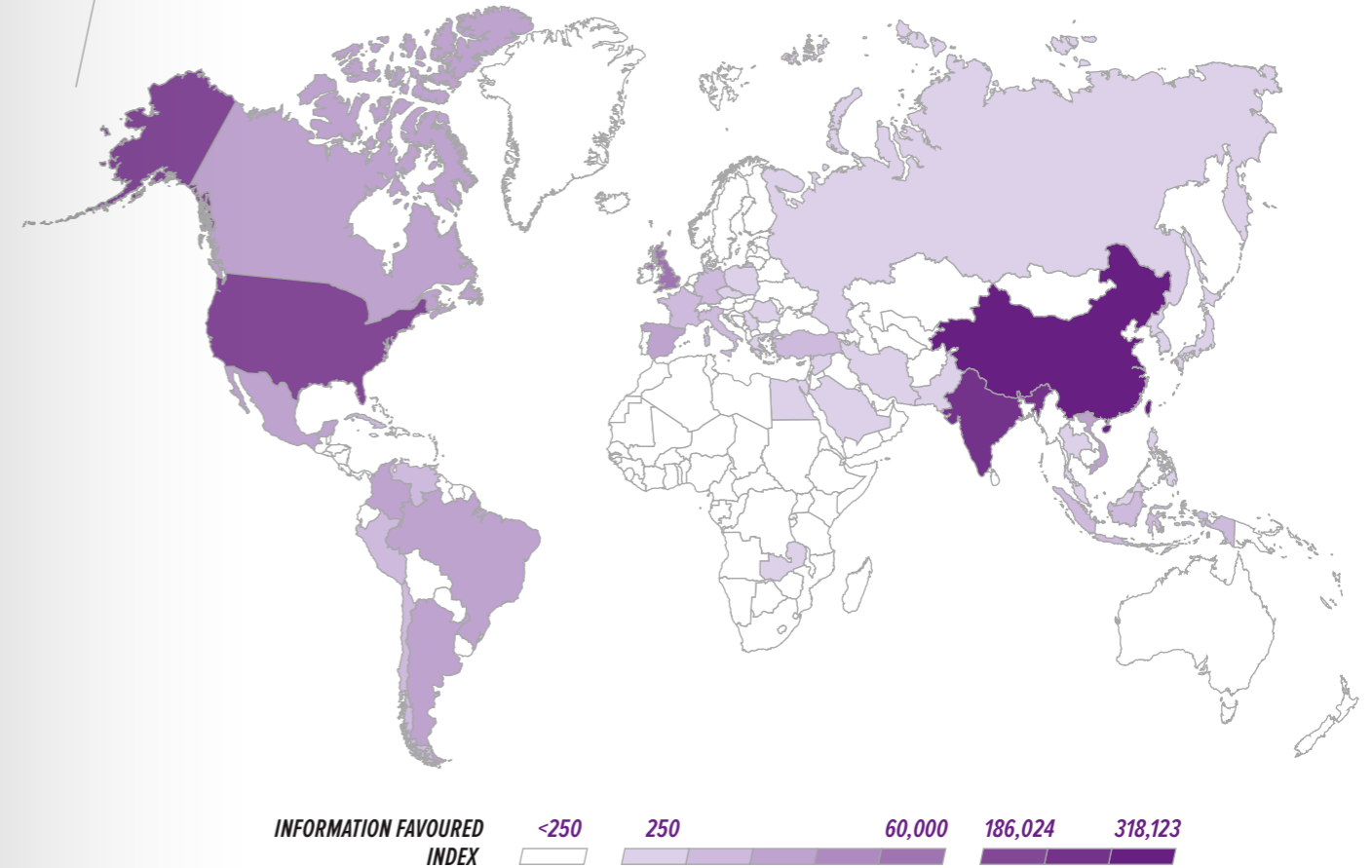
In the reporting period, about 40,000 publications in international mass media covered activities of the Rostec State Corporation – almost twice as many as in 2016.

Compared to the previous year, the geography of the Corporation's and its holding companies' exposure in the foreign press changed significantly. China saw the greatest amount of coverage of the Corporation's activities due to the growing number of business contacts and transactions in that country. The second place is India, which saw coverage of newsworthy events related to joint helicopter-engineering projects and plans for the export of Russian arms. The USA dropped to third place due to the sanctions, a reduction in the scope of cooperation with Russian companies and, consequently, declining interest of mass media in Russian industry.

Compared to 2016, Great Britain and Spain showed active interest in the Corporation. In the Southeast Asia, Vietnam expressed the greatest amount of interest, as the media index of local mass media almost doubled as compared to 2016 due to the active coverage of topics related to the prospects of military and technical cooperation.

In 2017, the Corporation participated in large international exhibitions such as IDEX-2017, LIMA-2017, SITDEF-2017, Paris Air Show-2017, Dubai Airshow-2017, Milipol-2017. The presentation and exhibition events were supported by information campaigns aimed at promoting the Corporation among foreign customers and potential partners.

Distribution of Countries by the Information Favoured Index of the Corporation in mass media





## 4. Sustainable development



**512,000**  
people —  
AVERAGE STAFF HEADCOUNT



## 4.1 Staffing policy

### Establishment of the Corporate Network Academy

In August 2017, the Rostec State Corporation incorporated and registered the Corporate Network Academy Autonomous Non-Profit Organisation to:

- combine, streamline and improve the processes for evaluating, training, and developing promising managers and employees;
- coordinate work with business schools, dedicated higher education institutions and colleges to train and retrain specialists in the top-priority and promising business fields of the Corporation;
- deploy the best world's practices and Russian practices for the formation of design activities and corporate culture to ensure the development of an innovative domestic environment, the market launch of new non-defence products and the retention of talented employees at the Corporation's enterprises.

As early as October 2017, the Academy's team developed and launched the Zapusk pilot programme in the radio-electronic cluster (Russian Electronics JSC) to train project teams with the purpose of launching the products in the civilian market. About 100 employees engaged in advanced developments of new types of non-defence products have undergone intensive training. The projects elaborated during the training with the participation of third-party experts and moderators were successfully defended in February 2018.

### Improvement of the incentive system

In 2017, the Rostec State Corporation has approved the long-term incentive system for 300 key managers of the central administration, holding companies and enterprises. The purpose of the system is to consolidate the efforts of the Corporation's management team to achieve the goals defined in the Corporation's Development Strategy. Total stockholder return (TSR) was selected as the key performance indicator for the long-term incentive system. TSR will be levelled with the EBITDA value multiplied by the industry's multiplier.

This formula is often used in the market to evaluate non-public companies. By tying this indicator to the motivation of top managers, the Corporation focuses their attention, resources and efforts on productive and efficient acts that must lead to a growth in assets' value. This programme was introduced on 1 January 2018 and will remain in effect until the end of 2025. It is divided into three-year cycles and one two-year cycle.

### Youth education initiatives

The Rostec State Corporation is actively involved in the WorldSkills international movement aimed at increasing the occupational prestige of blue-collar workers and the development of vocational training by arranging and holding professional skills competitions. The Corporation has been the general sponsor of the WorldSkills Hi-tech championship in 2016-2018. In 2017, the Corporation's team of 150 people participated in the championship and competed with employees of other corporations and large companies in 14 industrial competences. The Corporation's team came in second by winning (including presentational competences) 6 gold, 4 silver and 2 bronze medals. As expected, in 2018 WorldSkills will be comprehensively integrated into the system for training qualified workers at the Corporation's enterprises.

The Corporation also provides support to the following socially important educational projects:

- IT-Breakthrough All-Russian Contest of Breakthrough IT Projects;
- Projectory All-Russian Forum;
- Sirius Training Centre.

The Corporation actively participated in international youth initiatives, such as the XIX World Festival of Youth and Students held in Sochi and the Russian-Chinese Youth Regional Forum of the Privolzhsky Federal District.

## 4.2 Social responsibility

In 2017, the Rostec State Corporation carried out significant work to increase the efficiency of social policy, unify approaches to social responsibility among the Corporation's organisations and develop the social infrastructure for the best interests of employees of the Corporation's organisations of the defence industry sector.

The efforts focused on:

- systemic work with staff;
- attracting and retaining highly qualified specialists (including enterprises of the defence industry sector where renewal of the staff and transfer of competences to the young generation is a critical issue);
- strengthening the workforce potential of the Corporation's organisations and increasing the competitiveness of the Corporation for attracting staff, including highly professional and rare specialists;

- increasing the quality of life of workers and providing support for labour veterans and youth;
- building a positive image of the Corporation as a socially responsible employer.

The social policy under formation is mainly focused on developing long-term programmes encompassing important fields of the employees' social welfare such as solutions to the housing problem, healthcare services, health resort services, life and health insurance, non-state (supplementary) pension coverage and financial assistance.







For those purposes, the Corporation has introduced the Unified Corporate Social Policy Standards (the Standards). The Standards were prepared by drawing on best practices of social programmes implemented by leading Russian companies (including the Rosatom State Corporation, RZD JSC, Lukoil PJSC, Norilsk Nickel Mining Company PJSC, Sistema Joint-Stock Financial Corporation PJSC) and the results of monitoring and analysing existing social programmes of the Corporation's organisations.

The underlying principles of the Standards are as follows:

- Employees can independently select the components of the social welfare package within the prescribed limits and list of social benefits.
- Set of standardised solutions are provided in bundled solutions.
- Availability of mandatory elements of bundled programmes.

Given that the social welfare packages have a special structure, the Standards are aimed at protecting the interests of basic and highly qualified specialists, highly qualified workers, adapting social policy elements to the individual needs and life plans of the Corporation's employees and developing of a personalised approach to these issues. The work to introduce the Standards is being carried out jointly with labor union organisations.

In 2017, certain efforts were initiated to automate social programmes' management with the purpose of increasing transparency and quality of social expenditures' planning, as well as the optimisation, deployment and assistance to fulfill the Standards.

The Corporation continued the work to improve the housing programme in order to strengthen the security of the employees of the Rostec State Corporation and its organisations:

1. The corporate support limits have been updated as per the Unified Corporate Social Policy Standards (UCSPS) approved by the Corporation.
2. The categories of workers eligible for the corporate support have been expanded.
3. The variety of corporate support forms has been extended to include:
  - compensation or subsidising of interest/initial instalment under credit agreements for the purchase of immovable property (mortgage);
  - compensation or subsidising of rental and utilities payments;
  - compensation or subsidising of expenses upon the acquisition of residential spaces out of an employee's own funds;
  - organisational, methodological and financial support for housing cooperatives formed by the employees of the Corporation's organisations engaged in the defence industry sector.
4. Special conditions for socially disadvantaged workers, employees employed under fixed-term contracts and workers with experience at state authorities.

## Social Programmes

### Housing programme

The Corporation's housing programme optimises interest rates for the employees providing more attractive terms compared to standard market offers. The mortgage programme's participants are partner banks of the Corporation and the Mortgage and Housing Financing Agency, a party to an agreement entered into with the Corporation. The mortgage programme's participants are selected by the Corporation and its organisations from the list of employees of such organisations based on the professional and social factors and their work experience at the Corporation.

The main indicators of the Housing Programme of the Corporation and its organisations in 2016-2017:

- **2016** — total scope of financing: 627 million rubles (+41% as compared to 2015);
- **2017** — total scope of financing: 793 million rubles (+26% as compared to 2016).

With the support from the Mortgage and Housing Financing Agency (MHFA), the Ministry of Industry and Trade of the Russian Federation and the Ministry of Construction Industry, Housing and Utilities Sector of the Russian Federation, the Corporation has begun implementing a comprehensive project aimed at improving housing conditions of employees engaged in the defence industry sector. The project seeks to provide an opportunity for qualified specialists of the defence industry sector's enterprises to become members of the housing cooperatives and receive land plots from the government for housing construction. The pilot project was launched in the Moscow Region (Istrinsky district, total land area – 6.81 ha). The land for employees of the defence industry sector's plants for housing construction purposes is allocated on a free-of-charge basis under Federal Law No. 161-FZ dated 24 July 2008 "On Assistance to Housing Construction Development" and departmental statutes of the Ministry of Industry and Trade of the Russian Federation. The land plots will be granted to workers of the defence industry sector's enterprises – engineering specialists, blue-collar and other high-demand professions meeting the requirements of the programme. Official eligibility requirements include: at least five-years' experience working at a defence industry sector enterprise, or being under 35 years of age; lack of existing land plot granted by the government; and in need of improved housing conditions. Preference shall be given to employees with many children and other categories of people in need.

### Optional medical insurance

The Corporation offers optional medical insurance (OMI) programmes jointly with Insurance Agent RT-Insurance LLC. The focus of the Standards' implementation has shifted to expanding the category of OMI users among the workers of the Corporation, and the corporate support limits have been updated. The Corporation has additionally held trilateral negotiations with the Mother and Child network of clinics and the Corporation's insurance company to extend the OMI package of services without any increase in the price of the agreement with the insurance company. Main indicators of the OMI Programme of the Corporation and its organisations in 2016-2017:

- **2016** — total scope of financing: 1.177 billion rubles (+11% as compared to 2015);
- **2017** — total scope of financing: 1.166 billion rubles (comparable to the level of the previous year).

### Non-State Pension Schemes

In 2017, the Corporation's project to consolidate pension benefit assets entered into the active phase of implementation. The work is being carried out under the unified corporate social policy standards for improving the corporate pension benefit programmes of the Corporation's organisations, and growing the number of users of the non-state pension coverage programmes among the Corporation's employees. The co-financing limits have been defined for the social benefits packages offered. The main indicators of the non-state pension coverage programme of the Corporation and its organisations in 2016-2017 are:

- **2016** — total scope of financing: 869 million rubles (+2% as compared to 2015);
- **2017** — total scope of financing: 919 million rubles (+6% as compared to 2016).



## Health resort services

In 2017, the health resort services programme became one of the most popular components of corporate support for the workers of the Corporation's organisations.

The main indicators of the health resort services programme of the Corporation and its organisations in 2016-2017 are as follows:

- **2016** — total scope of financing: 524 million rubles (+2% as compared to 2015);
- **2017** — total scope of financing: 655 million rubles (+25% as compared to 2016).

## Occupational Health And Safety

The Rostec State Corporation pays special attention to matters of work safety, healthcare, prevention of occupational diseases and efficiency of medical treatment of employees at the expense of the Corporation's enterprises. Preventive examinations and health assessments have been arranged as part of the primary healthcare and specialised medical care services.

In 2017, the Corporation continued its work to increase the level of industrial safety and occupational health protection. The Corporation participated in the III Dialogue Forum called "Industrial Safety is Responsibility of the Government, the Business and the Society", during which a concept for formation of the sustainable security culture named "Cubed Safety" was determined.

### 1. Safe labour:

- Safe production management (remote security monitoring systems).
- Safe technologies (use of automated control systems to evaluate the level of industrial and environmental safety and cyber-security of process control systems).
- Human safety (introduction of the safety culture).

### 2. Safe environment:

- Lean production.
- Safe life-cycle.
- Safe production system (plants, social sphere, transport, infrastructure, information).

### 3. Safe country:

- Safety of next generations: sustainable development system – what is created today should do no harm in the future.
- Sustainable safety engineering.
- Continuous safety management.

Today, the Corporation's budgeting structure includes enterprises possessing more than 1,300 dangerous production facilities, which increases the significance of the Corporation's social responsibility in terms of society and reputational risk management.

In order to achieve the predefined goals, certain efforts were made to create an integrated industrial and occupational safety system of the Corporation, including:

- The Corporation participated in the All-Russian Occupational Safety Week 2017.
- Objective data were obtained on the current level of industrial safety at the Corporation's organisations.
- Draft Industrial and Occupational Safety Policy and Strategy of the Corporation were assembled.
- Changes in the industrial and occupational safety legislation are being consistently monitored to keep the statutes of the Corporation's organisations up to date.
- Work is being done to improve corporate values and beliefs and increase the production culture.

## Final indicators of social programmes of the Corporation in numbers (2015-2017)

Production expenses of a social nature:

- **2016** — 5.3 billion rubles
- **2017** — 6.9 billion rubles

Production expenses of a social nature per employee:

- **2016** — 11,700 rubles
- **2017** — 13,500 rubles

## Support for social events

The most important fields of social activities of the Rostec State Corporation include charity and sponsor support, such as:

- assistance in personal spiritual development and support of cultural and art events;
- assistance to activities in the sphere of education and science;
- support for physical education and sports;
- development of a healthy generation and the promotion of healthy lifestyle.

Overall, in 2017 the Corporation implemented 43 sponsored projects with more than 1,500,000 visitors and participants. The audience of these events, when considering direct broadcasts and social media, exceeded 310 million people.

## Cultural and art events

### SPASSKAYA TOWER Festival of Military Bands

Spasskaya Tower, the world's top festival of military bands, was held for 10th time in Moscow with the support of the Rostec State Corporation.

The 30 best military orchestras from 14 countries performed on stage from 26 August to 3 September 2017 on the Red Square. Silent drill teams from Russia, Belarus, Kazakhstan and Mongolia and the Cavalry Escort of Honour of the Presidential Regiment and the Kremlin Riding Academy presented their repertoire. The performance was accompanied by light and pyrotechnic shows.

Approximately 75,000 visitors watched the show live at the Kremlin, and one million people watched the TV broadcast.







### ROSTEC International Fireworks Festival

On 19-20 August 2017, the third Rostec International Fireworks Festival was held in Brateevo Park in Moscow. The festival dedicated to the capital's upcoming anniversary was called "Moscow on Seven Hills".

Seven "historical hills" were erected in the park, and each was decorated with a dedicated arts installation. The visitors could participate in workshops, shop in a craft market, visit a historical food court or enjoy a sports entertainment zone.

The festival included shows by the strongest teams from eight countries – Austria, Armenia, Brazil, China, Russia, Romania, Croatia and Japan. The visitors demonstrated the latest developments in pyrotechnics. More than 60,000 incredible shots were made in the two days of the intensive show programmes, with the total firework programme lasting about 180 minutes. More than 700,00 people attended the event.

The audience's choice award was given to the Chinese team. The jury awarded the first prize to the team from Russia, the second prize to the team from Croatia, and the third prize to the team from Romania. The Rostec International Fireworks Festival was recognised as the best city event of 2017 according to bema!, the largest professional event-based marketing and communications prize in Russia and CIS.

### TOLSTOY WEEKEND Theatre Festival in Yasnaya Polyana

In 2017, the Rostec State Corporation was the general sponsor of the Tolstoy Weekend Theatre Festival dedicated to the great Russian writer Leo Tolstoy.

During three days of the event, from 9 to 11 June, visitors could watch opera and dramatic plays on four open air stages reflecting the creative work of Leo Tolstoy. Platforms for theatrical performances were installed in the Yablonevy Sad and Kliny Park, two stages were erected near the manor and two discussions were held in the Volkonsky house.

In 2016, Moscow and Saint Petersburg companies staged performances, and in 2017 they were joined by theatres of Togliatti, Nizhny Novgorod, Sevastopol and a foreign crew from Daugavpils (Latvia).

In 2017, the festival was attended by 5,000 visitors, including more than 100 representatives of federal and regional media. More than 900 publications about the event were published by the media.



### A HERO OF OUR TIME Big Sevastopol Officers' Ball

The Fourth Big Sevastopol Officers' Ball, called "A Hero of Our Time", was held in Sevastopol on 11 June 2017 on the Mikhailovskaya Coastal Battery Square. In 2017, this major cultural event was dedicated to the Russia Day and the Hero City Day of Sevastopol.

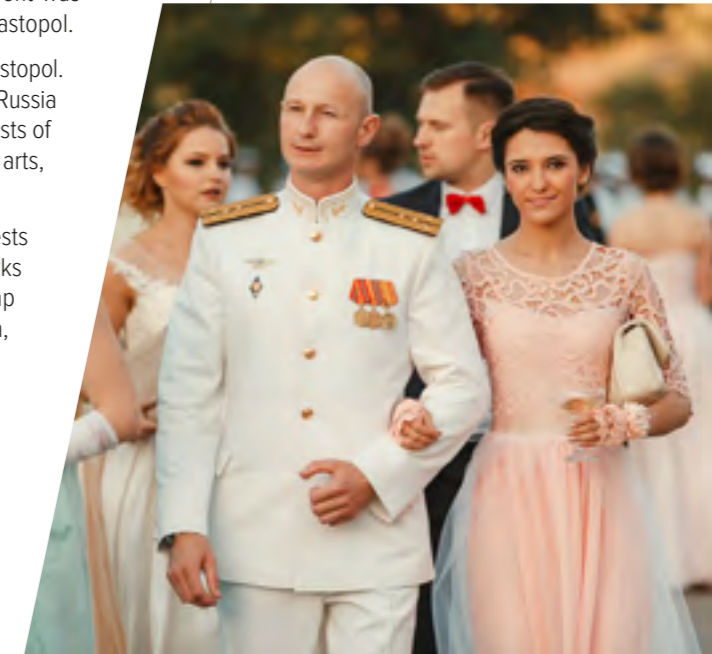
The annual ball is an indicator of the reviving culture of Sevastopol. The ball's participants were officer couples from all fleets of Russia and civilian couples from all corners of the country. The guests of the event included representatives of business, politics and arts, as well as officials and charity workers.

The artistic theme of the ball was A Hero of Our Time. All guests participated in a parade of fictional characters of the great works of literature: Andrei Bolkonsky, Eugene Onegin, Stierlitz, Ostap Bender, Don Quixote, Grigory Pechorin, Hamlet and Petrushka, a fairytale character.

The event was attended by more than one thousand people, including 82 officer couples and 85 civilian couples. The participants arrived from Moscow, Saint Petersburg, Krasnodar, Kerch, Simferopol, Severomorsk, Yalta, Vladivostok, Yekaterinburg, Rostov, Orenburg and Kaliningrad.

The event was arranged by the Blagorodnoe Sobranie of Sevastopol with support from the Black Sea Fleet of the Russian Federation.

The officers' ball was watched by more than 3 million people.







### IN THE FAMILY CIRCLE International Film Festival

On 8-14 July 2017, the 12th "In the Family Circle" International Film Festival took place in the Yaroslavl Region with the support of the Corporation. 18 films from 14 countries were shown at various cinema halls of the region during the festival.

The business programme of the festival included 6 roundtable discussions. Yaroslavl was not the only city where the major cultural programme took place; creative evenings were also held in Uglich, Rybinsk, Myshkin, Pereslavl-Zalessky, Danilov, Rostov and Nekrasovsky.

More than 50,000 viewers attended the film festival over one week.

### OPERA IN CHERSONESOS First International Music Festival

The Opera in Chersonesos First International Music Festival took place from 18 to 20 August 2017 at the Chersonesos Historical and Archaeological Park with the support of the government of Sevastopol and the Rostec State Corporation. The festival was visited by more than 3,000 people.

The festival's opening ceremony was attended by the President of the Russian Federation V.V. Putin and the Chairman of the Government of the Russian Federation D.A. Medvedev, as well as honoured citizens of Sevastopol, veterans, honoured workers of culture and students of music schools.



The Festival brought together not only famous lead singers, but also young Russian and foreign opera artists. While famous arias from classic operas were performed against the background of the antique museum town and in the Italian open yard, the core of the festival was Russian classic opera.

The TV channel Russia 24, the Information Channel of Sevastopol and Orpheus Radio served as information partners of the festival.

### HOLIDAY SONGS Turetsky Choir Project

The Rostec State Corporation is a partner of the Holiday Songs Turetsky Choir Project. In 2017, the concerts were held at the central halls of Ryazan, Yaroslavl, Kaliningrad and Ulan-Ude.

The concept of the project was first raised during a meeting with the President of the Russian Federation V.V. Putin, who supported the idea of performing the Holiday Songs shows in all regions of Russia. Such events provide people with positive energy and create a feeling of unity and cohesion.

In February 2017, the project was awarded the state award of the Government of the Russian Federation. In 2015-2017 the Holiday Songs shows took place in 35 cities of Russia and 15 cities of Kazakhstan. In 2017, about 50,000 people attended the events.

### Scientific and educational projects

#### Fifth PROJECTORY All-Russian Forum

The Rostec State Corporation was an official partner of the Fifth Projectory All-Russian Professional Navigation Forum held from 1 to 4 September in Yaroslavl. In 2017, the professional navigation forum aimed at solving career guidance problems and supporting talented school students gathered together more than 500 participants – winners of scientific and creative contests and competitions from all corners of the country.

The main event of the forum was all-Russian open lesson called "Future-Oriented Russia" hosted by the President of the Russian Federation V.V. Putin. More than 4.5 million people from various regions of the country participated in the open lesson, either personally or via the teleconference.



Upon completion of the forum, the Rostec State Corporation awarded prizes and promotional gifts to children with special talents. Three pupils were given an opportunity to study at the leading technical higher education institutions of Russia, the Bauman Moscow State Technical University and the Moscow Engineering Physics Institute, with full support from the Corporation.

### DIGITAL INDUSTRY OF INDUSTRIAL RUSSIA 2017

The Rostec State Corporation was a strategic partner of the Digital Industry of Industrial Russia 2017 international conference held from 24 to 26 May 2017 in Innopolis, Republic of Tatarstan.

The Digital Industry of Industrial Russia 2017 conference sought to consolidate the business community and the government around the digital economy building principles as per the message of the President of the Russian Federation V.V. Putin to the Federation Council in December 2016.

At the conference's opening ceremony Nikolai Nikiforov, the Minister of Communications and Mass Media, presented the Road Map of the Digital Economy of the Russian Federation programme. A session of the Digital Economy working group of the Presidential Economic Council dedicated to the digital economy also took place. More than 39 panel and roundtable discussions were held to discuss urgent topics such as IT sector development and conversion, non-resource export, cyber security, digitalization of the city environment, e-healthcare, e-learning, artificial intelligence, unmanned control, corporate venture funds, etc. Attention was focused on the new tools for launching and managing economic and production processes – Blockchain, Big Data, Internet of Things, artificial neural networks, machine learning prospects, digital governmental governance and legislative regulation of new economic sectors.

The conference granted an array of opportunities for representatives of medium-sized and small business to share advanced solutions in the sphere of electronics and software development. Corporations and holdings can help to deploy such solutions in the relevant sectors of the national economy.

Across three days, more than 5,100 people and 204 spokespeople, including heads of dedicated ministries and the holding companies and corporations, attended and presented at DIIR 2017. More than 1,500 Russian and international companies participated in the conference.

### BIOTECHMED

Biotechmed, the largest Russian biotechnologies conference, was held for the second year in a row in Gelendzhik on 14-15 September 2017. The Rostec State Corporation was a strategic partner of the event.

The conference has proven itself to be the flagship platform for discussing issues related to the development of the pharmaceutical industry, biotechnologies and healthcare in general.

This year, the forum included more than 20 roundtable discussions and panel sessions dedicated to such topics as the circulation of new drugs, the development of new immunobiological drugs,







innovative medical equipment, the sale of Russian drugs in foreign markets and the export of medical services in the Russian Federation (incoming health tourism).

During the event, the Corporation presented the newest developments of its holding companies: a non-invasive brain-computer interface and unrivalled bionic prostheses. Shvabe JSC and KRET JSC granted an opportunity to conference visitors and participants to carry out a medical examination. Visitors of the exhibition stand of Shvabe JSC tested the automatic cardio-system, a pacemaker for pressure regulation, analytical scales, a blood glucose monitor, a tonometer and other devices.

During the conference, the Corporation and its subsidiaries entered into several agreements with the Ministry of Healthcare of the Russian Federation and foreign companies seeking to develop the e-healthcare system and nationalisation of production of critical medicinal drugs.

Representatives of 52 regions of Russia and more than 300 companies participated in the conference. Some subsidiaries of the Corporation, including Shvabe JSC, NCI LLC and Russian Helicopters JSC, were partners of the Biotechmed conference. More than 1,500 people participated in the conference.

## FUTURE-ORIENTED RUSSIA

“Future-Oriented Russia”, the fifth exhibition of the cycle of multimedia historical exhibitions, was held from 4 to 22 November 2017 at the Manege Central Exhibition Hall. More than 200,000 people visited the exhibition over 18 days of work, i.e. more than 11,000 people per day.

The stands in the exhibition halls were dedicated to the space, IT, science, industry, transport, medicine, environment and town planning spheres.

For the first time ever the Rostec State Corporation presented at Future-Oriented Russia unrivalled carbon implants designed for correcting human skeleton defects. The implants are made of carbon composite materials (CCM) with programmable biomechanical properties based on technology developed by Shvabe JSC

The Future-Oriented Russia exhibition was created by the Ministry of Industry of Russia, and the Corporation has been charged with developing the concept and contents of the Industry hall under the direction of the Ministry.

## ARCTIC REGION: PRESENT AND FUTURE International Forum

The Seventh International Forum “Arctic Region: Present and Future” was held in Saint Petersburg from 4 to 6 December 2017. The Forum convened with the support of the State Commission for Arctic Development and the Rostec State Corporation. More than 1,600 participants from 37 regions of Russia and 17 foreign countries participated.

The forum's main topics included the development of home zones in the Arctic region and social and economic development of polar territories.

During “Arctic Region: Present and Future”, Russian Helicopters JSC presented to the deputy Chairman of the Russian Government Dmitry Rogozin the VRT300 Arctic Supervision helicopter-type unmanned aerial vehicle designed for operation in the Northern Sea Route.

VRT300 Arctic Supervision is primarily designed for developing the transport system of the Northern Sea Route and assisting in the exploration of the Arctic Region.

## Sports projects

As part part of its physical education and sports corporate policy, the Rostec State Corporation holds many events each year to promote sports development in Russia.

The Corporate Games organised by the Corporation jointly with the Sport Foundation have become a landmark event for participating organisations.

On 13 March 2018, the Rostec State Corporation jointly established with the Sport Foundation the Labour Reserves All-Russian Physical Education and Sports Association (ARPESC) to fulfill the message of the President of the Russian Federation made at the end of the session of the Russian Federation Presidential Council for Development of Physical Education and Sports.



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*“More than half a million people are employed at the Rostec State Corporation’s enterprises across the entire country. Considering that the sports events are open not only for the employees, but also for their families, we can state that the Labour Reserves will jump-start massive sports in Russia.*

*Strong, positive employees will help us on our path to success and in achieving professional goals. For example, it is so nice that, in many one-factory towns, “sports days” will become a real holiday for all citizens.”*  
(S.V. Chemezov, CEO of the Rostec State Corporation)

The project’s main goal is to promote corporate sports and engage the mass of workers of the industry and the defence industry sector in physical education and sports. The Association will offer solutions to such important social and economic problems as the need to increase the physical education level among the gainfully occupied population, improve the moral and psychological environment in the labour collectives of enterprises, grow the total level of physical, production and moral and psychological health of the society, build teams at enterprises and improve the attractiveness of work at the industrial enterprises.

The Ministry of Industry and Trade of Russia, the Ministry of Sports of Russia and 43 Russian regions supported the project.

The board of founders of ARPESC includes representatives of the Rostec State Corporation and the Sport Foundation, Olympic champions and eminent professional athletes.

## Deminsky Ski Marathon

The Tenth Traditional FIS/Worldloppet International Deminsky Ski Marathon of the Rostec State Corporation was held on 4 March 2017 in the town of Rybinsk. The participants of the marathon included Russian and foreign athletes, Olympic champions and ski amateurs. More than 3,000 athletes from 30 countries and 60 Russian regions participated in the race.

The marathon’s grand opening ceremony was attended by the acting governor of the Yaroslavl Region Dmitry Mironov.

All participants were awarded promotional anniversary medals and souvenirs at the finish line. The grand prize ceremony was held upon completing the 50-km freestyle race and was attended by the plenipotentiary representative of the Russian President in the Central Federal District Alexander Beglov and the aide to the Russian President Igor Levitin and acting governor of the region Dmitry Mironov. The guests greatly appreciated the level of organisation and importance of the marathon for Russian and world sports.

The Deminsky Marathon was covered by representatives of 80 mass media, including journalists of Channel One, NTV, Russia 1, Match TV and Fifth Channel.





## Rostec – Russian Corporate Games

The Rostec – Russian Corporate Games are a competition for employees of the largest Russian companies aimed at promoting mass sports. The event is not only a sports contest, but also a communication platform for informal socialisation and strengthening of relationships among employees of Rostec's enterprises. The competition's mission is making the nation healthier and making active and healthy lifestyle more popular.

Since 2011, the Rostec State Corporation has jointly sponsored the event with the Sport Foundation and Sovintersport JSC.

About 1,000 amateur athletes from 50 companies of various Russian regions participated in the winter session of the Games held in the town of Dolgoprudny, and more than 250 sets of medals were awarded across 25 disciplines. More than 60 enterprises participated in the summer session of the competition held in the Republic of Crimea, and more than 350 sets of medals were awarded across 30 disciplines.

Overall, more than 35,000 employees of large Russian companies participated in the competition in 2017.

## Arsenal Football Club

In 2017, the Corporation continued its partnership with the Arsenal professional football club. The partnership is aimed at the support and development of popular sports in Tula at the facilities of Arsenal PFC. The Corporation is helping the club build a modern management system and marketing communications, and along with the regional and municipal administration will support the necessary infrastructure development.

## Russian Ice Hockey Federation

Since 2006, the Rostec State Corporation's organisation Rosoboronexport JSC has been an official partner of the Russian Ice Hockey Federation and the Russian men's national ice hockey team.

The funds contributed by Rosoboronexport JSC to the development of the resources and facilities, children's and youth tournaments, and support of the national team is a leading factor behind the glorious victories of the ice hockey players at the most important world tournaments.

In 2017, the Corporation's organisation sponsored several significant tournaments, including: Euro Hockey Tour (Russia vs. Finland match held in Moscow), Eurochallenge (Russia vs. France match held in Chelyabinsk) and the Ice Hockey World Championship.

## Russian Cycling Federation

An International cycling competition was held from 26 to 28 May 2017 at the Moscow Grand Prix track with the support of the holding company. Apart from Russian racers, the competition included athletes from Belarus, Italy, Ireland, Germany, Kazakhstan, Uzbekistan, Armenia, Azerbaijan and Lithuania. Russians were awarded gold medals and special prizes in various disciplines.

Apart from the Moscow Grand Prix, the Corporation also provided support to other large-scale cycling events in Russia in 2017: Five Circles of Moscow bicycle racing, the Grand Prix of Tula tournament and the Russian National Road Race Championship.

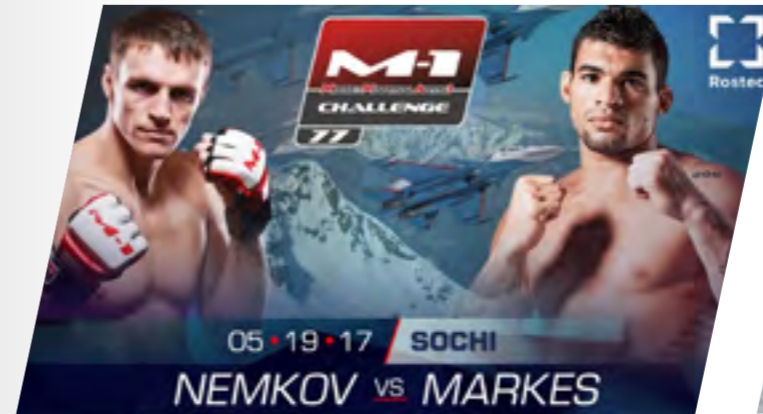
## All-Russian Swimming Federation

In 2017, the following swimming events were organised by the All-Russian Swimming Federation with the Corporation's support:

- Happy Dolphin All-Russian Swimming Competition
- Russian Open Water Swimming Championship
- Russian Swimming Cup
- V.V. Salnikov Cup, International Swimming Competition

More than 2,000 athletes participated in the events.

The Corporation's support promotes further development of swimming as a sports discipline, along with major competitions of a national and international scale.



## Martial arts

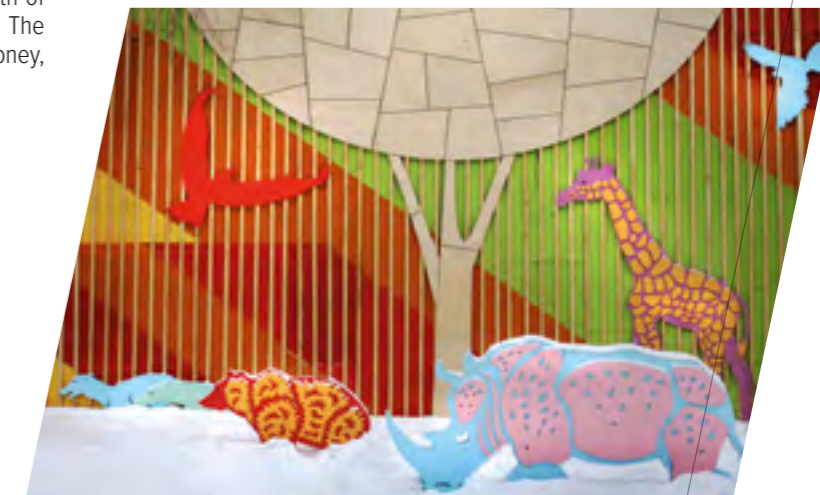
In 2017, the Rostec State Corporation sponsored several major martial arts events and projects:

- In September 2017, the Unarmed Combat Championship was held in Sochi with the sponsorship of the Corporation. The tournament gathered more than 1,000 athletes and more than 10,000 visitors from 17 countries.
- On 19 May, the Challenge 77 international mixed martial arts tournament arranged by M-1 Global was held in Sochi with the support of the Corporation. The event was sponsored by Rosoboronexport JSC. The tournament attracted more than 2,500 visitors.
- In conjunction with the Boxing Academy, the Corporation also developed an intra-corporate project called "Striking Ten" – a boxing tournament and punch power championship. The concept of Striking Ten is based on principles and values similar to those of the Corporation – activity, commitment, strength and development. The competition's qualifying stages were held in 16 cities in which the Corporation operates. The final tournament was dedicated to the tenth anniversary of the Rostec State Corporation and featured teams from 25 enterprises and holding companies of the Corporation. Almost 7,000 people dared to try their hand at claiming the championship, and the overall strength of the corporate punch was about 1.2 million kilograms. The Striking Ten championship winners shared the prize money, worth 2.1 million rubles.

## Construction of a playground for cancer-stricken children at the Russian Children's Clinical Hospital

A playground was opened at the Russian Children's Clinical Hospital (RCCH) in August 2017 with the support of the Rostec State Corporation. The project to build of a rest and rehabilitation zone for children was initiated by the acting Hospital Administrator of RCCH Kirill Konstantinov, who requested help from Rostec CEO Sergey Viktorovich Chemezov.

The architect of the playground is Evgeny Polyantsev, professor of the Architectural Reconstruction and Restoration Department of the Moscow Institute of Architecture. The project was based on the recommendations of the expert council of RCCH, which is composed of the leading Russian paediatric neurologists and medical rehabilitation specialists. The playground's structures and materials meet all the current safety and sanitary standards with due regard to the needs of children with various physical limitations. The specially designed layout balances zones for comfortable and quiet rest, sports rehabilitation areas and entertainment zones.





## 4.3 Anti-corruption practices

In 2017, anti-corruption practices were in compliance with the Anti-Corruption Plan of the Rostec State Corporation for 2016-2017 (the Plan), developed as per the Decree of the President of the Russian Federation dated 1 April 2016 No. 147 "On the National Anti-Corruption Plan for 2016-2017".

The approved plan was implemented in the following areas:

### Development of a regulatory framework

The Corporation's Anti-Corruption Policy, which defines the basic principles and requirements of employees regarding compliance with the provisions of the anti-corruption legislation, has been developed and introduced as scheduled under the Corporation's statute.

Timely introduction of amendments and supplements to the regulatory database of the Corporation has been implemented pursuant federal anti-corruption legislation, including with the help from of non-governmental associations.

The following documents have been updated and supplemented: Code of ethics and formal behaviour of the Corporation's employees; and the methodological recommendations on filing the statements of income, expenses, property and property obligations.

By virtue of the order of the Russian Government, Rostec developed and implemented the "List of Positions Whose Substitution Entails Prohibition of Labour Activity in Case of Close Family Relationships Subject to Subordination or Accountability of the Corporation's Employees".

### Anti-corruption control and corruption risks management

The Rostec State Corporation arranged and held campaigns to collect of income and property-related data for the reporting year 2016. During the reporting period, 781 statements of income of 315 employees were presented.

Income and property-related statement of 211 employees have been analysed. Income and property-related information on the managing and industrial directors and heads of organisational units of the Corporation for 2016 have been monitored. As a result, 7 workers were audited, with the outcome communicated to the Corporation's CEO.

Pursuant to the Corporation's order, the employees were obliged to fill-in income and property-related statements using the Spravka BK special software.

Work has been carried out to minimise the risks of conflicts of interest. The Corporation's workers who must submit information on their income were recommended in writing to notify the Security Department of any secondary employment. A decision was made at a meeting of the Management Board to cancel payment of consideration to the Corporation's workers for their membership in the Board of Directors of the Corporation, audit commissions and committees of the Board of Directors.

The following documents have been developed: Provisions on selecting for employment and the Corporation's Staff Administration Rules (internal standard), by candidates for employment are checked for signs of potential conflict of interests. In the course of selecting the candidates for employment, five candidates for executive roles showed signs of possible conflict of interests if

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*In 2017, anti-corruption practices were in compliance with the Anti-Corruption Plan of the Rostec State Corporation for 2016-2017 (the Plan), which was developed as per the Decree of the President of the Russian Federation dated 1 April 2016 No. 147 "On the National Anti-Corruption Plan for 2016-2017"*

charged with certain duties. The activities of the commission for compliance with the requirements of the official behaviour of the Corporation's employees and settlement of conflict of interests have been ensured. A statute formed and approved its new composition, and three meetings were arranged and held to review the materials regarding five workers.

The Rostec State Corporation has arranged and monitored the process for further formation of negative attitudes towards corruption among the workers, including certain efforts aimed at increasing the level of workers' legal culture. The Corporation regularly holds training sessions for certain categories of workers, replacing corruption-exposed positions at both the headquarters and the Corporation's organisations. The Corporation has ensured control of workers' compliance with the rules and standards of the Code of Ethics and arranged the work of the Ethics and Corporate Behaviour function.

The anti-theft, anti-fraud and anti-corruption hot line operates as per the Rules approved under the internal statute. The information on the hot line's operation is printed on special posters and published on the websites of the Corporation and its organisations. Nine reports of signs of corrupt practices were submitted to the hotline in the reporting year 2017. The information in these reports was confirmed, and certain materials were handed over to the law enforcement authorities.

Anti-corruption outreach initiatives have taken the form of information letters disseminated from a special email address and the continuous update of the Corporation's website.

The workers are informed of changes to the legislation of the Russian Federation governing anti-corruption matters.

During the reporting period, nine meetings of the Management Board chaired by the Corporation's CEO took place in which the anti-corruption practices and the prevention of other offences

were discussed. Certain efforts related to sponsorship and charity, including efforts aimed at preventing corruption risks and offences, were also discussed.

Instructions on measures aimed at minimising risks for workers who might be subject to foreign anti-corruption legislation were prepared and delivered to the Corporation's organisations as part of the Rostec State Corporation's scheduled tasks. Compliance with these measures has been ensured through monitoring. Such measures protected the Corporation against application of the rules of foreign anti-corruption legislation in the reporting period.

The Audit Committees of the boards of directors of Rostec companies reviewed the anti-corruption practices of sixteen holding companies with participation of the Corporation's Security Department management. As a result, certain resolutions were delivered to the boards of directors revealing deficiencies and recommending solutions to fix them.

The Management Board reviewed and approved draft changes to the Unified Procurement Provisions of the Rostec State Corporation, which were approved by the Supervisory Board of the Corporation to improve procurement conditions, procedures and mechanisms.

Compliance with the anti-corruption legislation has been analysed in conjunction with the applicable Procedure for Reporting by Workers of Gifts Received in Connection With Their Positions or Job Duties. The practice of giving or receiving gifts during business trips and meetings was eliminated in the reporting period. Letters from the Corporation's management distributed on the eve of holidays warns workers against accepting gifts.





Anti-corruption awareness building among the workers of the Rostec State Corporation became stronger in the reporting period. In 2017, 36 workers (as compared to 22 workers in 2016) completed anti-corruption training and advanced training, including 14 new representatives of the senior management of the Corporation.

Anti-corruption information is now published in a timely fashion on State Corporation Rostec's website. In particular, information on income and property of certain categories of the Corporation's workers has been published and systematically updated, as well as the results of meetings and resolutions of the Commission, anti-corruption statutes and methodological and reference information materials. The media has helped the Corporation cover anti-corruption efforts. More than 50 speeches by the Corporation's representative regarding anti-corruption matters were published in the media and on the web in the reporting period.

### *Interaction with the State Bodies and Non-Governmental Organizations*

The results of anti-corruption activities have been sent to the President of the Russian Federation. Four informational letters have been delivered to the Government of the Russian Federation, including: on the course of implementing additional measures aimed at increasing the efficiency of anti-corruption practices; on arrangement of anti-corruption training and advanced training for the workers of the Corporation and its organisations whose duties imply prevention of any corrupt practices, as well as substituting positions related to a high corruption risk;

on application of anti-corruption legislation to prevent and settle any conflicts of interests.

The following information has also been sent to the Government of the Russian Federation:

- on control of compliance with anti-corruption measures within the Corporation and its organisations;
- proposals regarding qualification requirements to the managements of the defence industry sector's enterprises;
- on preparation and publication of income and property-related information on the Corporation's workers on the website.

Three messages containing information on the results of monitoring the conformity of expenses of certain categories of the Corporation's workers with their incomes, compliance of the Corporation's workers with the restrictions and prohibitions prescribed by the anti-corruption legislation and proposals to increase the efficiency of anti-corruption practices at the state corporations of the Russian Federation were sent to the Prosecutor General's Office of the Russian Federation.

7 informational messages were sent to the Ministry of Labour of the Russian Federation, including: on compliance by the Rostec State Corporation with the requirements of Article 13.3 of the Federal Law "On Anti-Corruption Activities", on the compliance of workers with the procedure for notification of any gifts received, on fulfilment of the requirements to the content of the official website of the Corporation, as well as reports on the results of anti-corruption activities in quarters 1, 2, 3 of 2017.



The Corporation prepared a progress report on the implementation of the Corporation's 2016-2017 Anti-Corruption Plan.

Work on anti-corruption review of draft statutes and effective statutes and orders has begun. 45 documentary materials have been reviewed in the reporting year (as compared to more than 20 in 2016). 6 corruption factors were revealed in these documents, which were amended. Anti-corruption activities of 59 organisations of the Corporation were monitored in the 4th quarter of 2017 (as compared to 49 in 2016) by 14 main criteria. The monitoring results speak to the growing efficiency and quality of anti-corruption activities at most of the Corporation's organisations.

The plan for joint efforts of the Corporation and the Ministry of Internal Affairs of the Russian Federation to identify and prevent crimes at the Corporation's enterprises have been extended and updated in the course of anti-corruption cooperation with law enforcement authorities. Rostec has provided information support for operative investigation measures in more than 50 criminal cases related to corruption under the said plan. In the reporting period, a series of efforts made jointly with the Federal Security Service, the Ministry of Internal Affairs and the Prosecutor General's Office of the Russian Federation prevented a number of crimes against the Corporation and its organisations. For example, 13 criminal cases were initiated on the basis of the Corporation's materials sent to the law enforcement agencies.

In cooperation with the security departments of the Corporation's organisations, certain assets were returned and financial damage was refunded totalling 560 million rubles, and the damage prevented amounted to more than 4 billion rubles. Overall, the vertically integrated security system of the Corporation is accountable for about 3.5 billion rubles of refunded damage and 5.2 billion rubles of prevented damage.

Control over the process of bringing of the Rostec State Corporation's organisations into the Anti-Corruption Charter of the Russian Business has been ensured through scheduled efforts. In addition, work is underway to improve the anti-corruption activities with the engagement of experts of the Scientific and Educational Anti-Corruption Centre of the Academy of the President of the Russian Federation, the Institute for Security Problems of the Higher School of Economics National Research University and the Institute of Legislation and Comparative Law of the Russian Government.

Results of the Corporation's anti-corruption activities and proposals to improve the anti-corruption legislation were incorporated into the report presented by the Corporation's representative at the All-Russian Research-to-Practice Conference on Urgent Problems of Elaborating and Applying Anti-Corruption Standards (held in May 2017 in Kazan) and the workshop discussion of the issues related to the application of anti-corruption legislation arranged by the Russian Presidential Anti-Corruption Administration in November 2017.





## 4.4 Environmental activities of the Rostec State Corporation

Organisations and holding companies of the Rostec State Corporation carry out environmental activities as per the Federal Law No. 7 "On Environment Protection" dated 19 January 2002. The enterprises regularly monitor compliance with the standards governing the maximum permissible emissions of pollutants into air, the permissible discharge of pollutants into water bodies and classification of wastes by hazard categories.

The Corporation's organisations and holding companies have adopted various environmental and ecological standards. In particular, Instrument Manufacturing Design Bureau JSC, a member of High Precision Systems NPO JSC, has already implemented the environmental management system that has been voluntarily certified for conformity with the requirements of GOST R ISO 14001-2016 "Environmental management systems. Requirements and application manual".

The Corporation's enterprises are developing a growing number of products to ensure environmental quality both in certain regions of Russia and on the national and global levels.

In the last few years, United Engine Corporation JSC commenced output of a series of cost-effective and environmentally-friendly engines and gas turbine units for the energy sector. Along with their cost effectiveness and high degree of efficiency, these products significantly reduce air emissions.

The SaM146-1S18 engine for the next-generation regional aircraft manufactured by a joint venture of Russia's UEC-Saturn PJSC and France's Safran Aircraft Engines for the Sukhoi Superjet 100 has been certified as in compliance with international and Russian standards, EASA and IAC AR. In terms of its environmental parameters the engine meets all international requirements and guarantees low emission levels of combustion products into the air per passenger.

Components made of innovative materials are widely used to manufacture the engine, which also reduces the load on the environment upon their manufacturing.

A whole series of advanced engines for new aircraft, such as the MS-21 long-range wide-body aircraft (LRWBA) and Il-114-300, will also improve the fuel consumption and environmental parameters of these airliners.

In 2017, United Engine Corporation JSC began testing the first Russian-made gas turbine power unit with a power of more than 100 MW. Based on its key technical and cost-effectiveness

parameters, it is equal to the best foreign counterparts. The advanced technologies used in the unit improve its efficiency while reducing the fuel consumption per one unit of generated energy. This, in turn, will help to reduce greenhouse gas emissions.

The Rostec State Corporation is implementing a large-scale programme to develop e-charging stations across the entire country. The first network of such stations will be deployed for pilot operation in the Krasnodar Territory.

In 2017, KRET JSC, the Administration of the Krasnodar Territory and Carsharing Russia LLC (Delimobil service) signed a trilateral agreement to develop the electric transport infrastructure in the Krasnodar Territory. For charging stations will be deployed in the region to provide e-charging services. The e-charging stations infrastructure will be deployed both in the "green areas" closed to cars with internal combustion engines, national parks and conservation areas, and on public roads in cities and populated localities of the Krasnodar Territory.

This agreement will kick-start a large-scale infrastructure project to develop the network of charging stations in other cities: Moscow, Moscow Region, Saint Petersburg, Yekaterinburg, Tyumen and Surgut.

This project will be of specific importance for large cities with high environmental load due to the growing number of gasoline- and diesel-powered cars.

In 2017, the Administration of Chelyabinsk purchased another batch of NEFAZ 5299-30-51 semi-low-floor buses powered by compressed natural gas. The first buses of this modification were purchased for Chelyabinsk in 2015.

This model of the modern range of NEFAZ PJSC, a subsidiary of KAMAZ PJSC, is equipped with a gas engine conforming to the Euro-5 environment standard. The use of a natural gas motor fuel may improve the quality of the air basin in Chelyabinsk. The city administration expects more purchases of this bus model for city transportation purposes.

KAMAZ PJSC developed Electrobus-6282 jointly with Drive Electro

Moscow Engineering Company. The work was carried out specifically for the Government of Moscow as part of the Memorandum of Formation of the National Consortium to Develop Autonomous Connected Electric Transport, which was signed at the Saint Petersburg Economic Forum in June 2017. The main goal of the consortium is to develop and launch the production of electric busses while also developing the Russian market for autonomous electric transport.

The electric bus is equipped with lithium-titanate batteries. The production of these small yet powerful batteries is associated with small amounts of carbon dioxide emissions. The service life of such batteries is 20,000 of full charge/discharge cycles. Therefore, the electric bus is considered one of the most environmentally-friendly types of modern transport.

In September 2017, a grand ceremony to hand over the updated KAMAZ-6282 and the quick charging station to Mosgortrans

State Unitary Enterprise for test operation was held at the Comtrans-2017 international exhibition of commercial transport.

Another important area of the Rostec State Corporation's environmental activities is the programme to construct power plants powered by solid municipal waste (SMW). RT-Invest JSC is one of the leading Russian company engaged in thermal neutralisation of SMW and SMW-based electric power generation. Construction of plants for the thermal neutralisation of SWM will significantly reduce the urgency of the environmental situation at large metropolitan dump sites. The plants will decrease the scope of dumping in the Moscow Region by 30%, and a "zero" dumping approach will be applied in Kazan.





# Disclaimer

Some statements contained in this annual report of the Rostec State Corporation are based on forecasted future events. Such statements contain terms referring to the future nature of an event, including (but not limited to) the words “considers”, “assesses”, “expects”, “assumes”, “plans”, “could”, “intends”, “will”, “must”, their equivalent negative forms, phrases with similar meaning, as well as discussions of strategies, plans, goals, tasks, future events or intentions of the Corporation.

The above statements that contain forecasts related to future events are subject to the effects of risk and factors of uncertainty, which may result in the deviation of forecasts from actual results. The Rostec State Corporation therefore does not recommend that readers unreasonably rely on any information in this annual report with respect to future events. The Corporation assumes no obligations to publicly revise these forecasts, neither in an attempt to reflect the events or circumstances taking place after the publication of this annual report, nor aiming to refer to an unexpected event, except as needed in accordance with legal requirements.

**Statements of a forecasting nature may include (without limitations) the following information:**

- assessment of the Corporation’s future operational and financial results as well as the forecasting of factors having an effect on the current value of future cash flows;
- the Corporation’s plans for constructing and upgrading of industrial facilities, as well as scheduled capital investments;
- the Corporation’s product demand behaviour and plans for developing new products, as well as pricing plans;
- plans for improving the corporate governance practice in the Corporation;
- the Corporation’s future industry position and forecasts of the development of market segments in which the Corporation operates;
- possible regulatory changes and the assessment of the effect of various statutes on the Corporation's activities;
- other plans and forecasting of the Corporation regarding future events.





**Rostec**