



atomenergomash
COMPANY OF ROSATOM

10

2006

2016

YEARS OF PROGRESS
INTEGRATED ANNUAL REPORT 2016

JSC ATOMENERGOMASH 2016 INTEGRATED ANNUAL REPORT



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JSC Atomenergomash provides access to the integrated interactive version of the annual report for 2016 for its stakeholders. This product allows easy information presentation of the main annual results of the Company, as well as the access to additional data, which was not included in the print version in a analysis-friendly format.

i – Links to online version

GRI – GRI indicators

Approved by the Board of Directors
on May 26, 2017

Preliminarily approved by the Chief
Executive Officer on May 19, 2017

Chief Executive Officer

Andrey Nikipelov

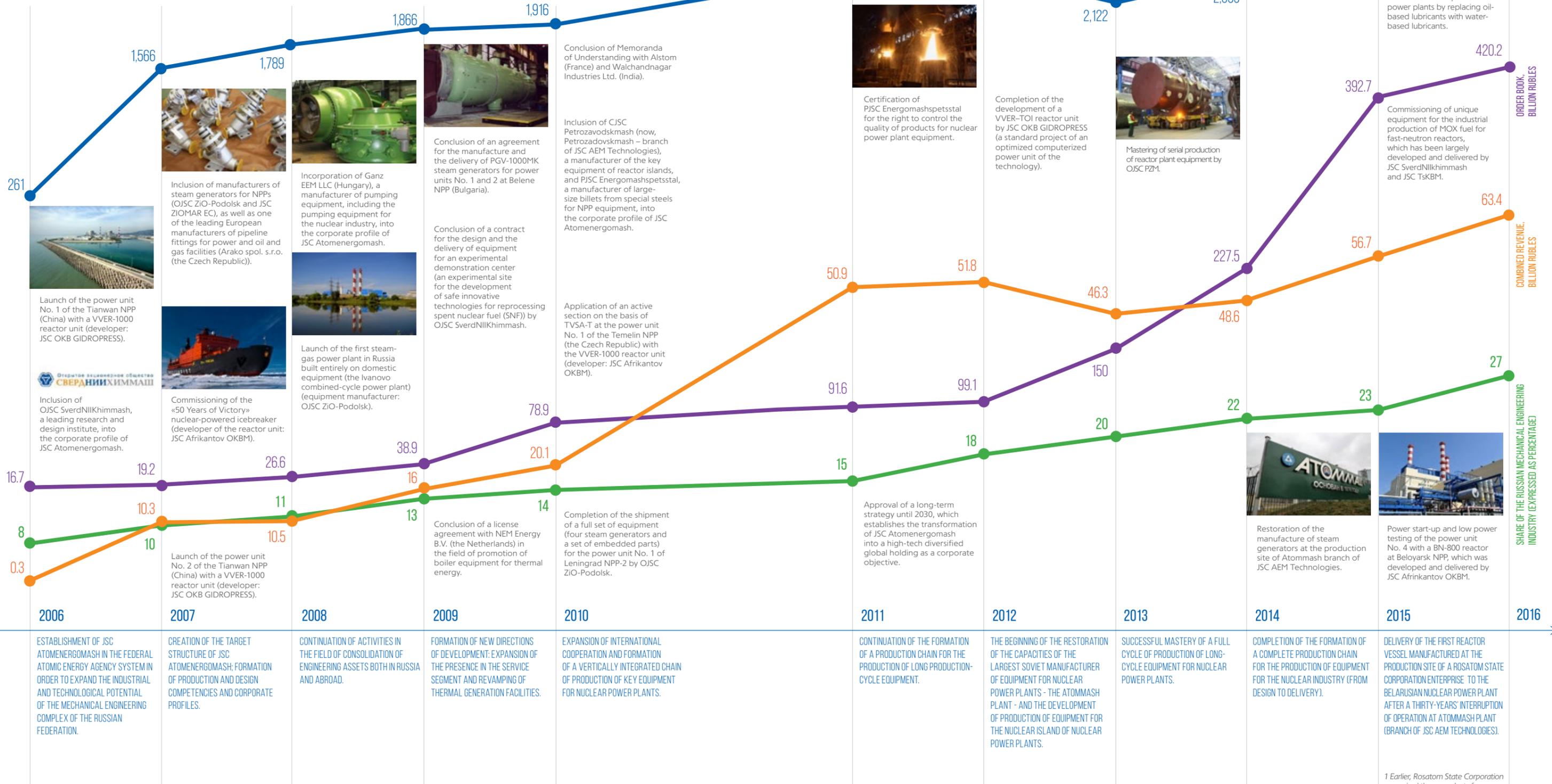
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10 YEARS OF PROGRESS

JSC ATOMENERGOMASH (HEREINAFTER REFERRED TO AS THE COMPANY) IS ONE OF THE LEADERS OF THE RUSSIAN MECHANICAL ENGINEERING INDUSTRY. ITS HISTORY BEGAN WITH TWO ENTERPRISES, AND NOW ITS PROFILE ALREADY CONTAINS MORE THAN TWENTY COMPANIES, WHICH INCLUDE LEADING DESIGN BUREAUS, THE LARGEST MACHINE-BUILDING PLANTS, AND SCIENTIFIC ORGANIZATIONS. THROUGH ITS PARTICIPATION IN THE KEY PROJECTS OF ROSATOM STATE CORPORATION, THE COMPANY EXPANDS ITS COMPETENCES, ACTIVELY MASTERS NEW TECHNOLOGIES, AND CONQUERS NEW MARKETS.



261

Launch of the power unit No. 1 of the Tianwan NPP (China) with a VVER-1000 reactor unit (developer: JSC OKB GIDROPRESS).

1,566

Inclusion of manufacturers of steam generators for NPPs (OJSC ZIO-Podolsk and JSC ZIOMAR EC), as well as one of the leading European manufacturers of pipeline fittings for power and oil and gas facilities (Arako spol. s.r.o. (the Czech Republic)).

1,789

Incorporation of Ganz EEM LLC (Hungary), a manufacturer of pumping equipment, including the pumping equipment for the nuclear industry, into the corporate profile of JSC Atomenergomash.

1,866

Conclusion of an agreement for the manufacture and the delivery of PGV-1000MK steam generators for power units No. 1 and 2 at Belene NPP (Bulgaria).

1,916

Conclusion of Memoranda of Understanding with Alstom (France) and Walchandnagar Industries Ltd. (India).

2,397

Inclusion of CJSC Petrozavodskmash (now, Petrozavodskmash – branch of JSC AEM Technologies), a manufacturer of the key equipment of reactor islands, and PJSC Energomashspetsstal, a manufacturer of large-size billets from special steels for NPP equipment, into the corporate profile of JSC Atomenergomash.

2,414

Application of an active section on the basis of TVSA-T at the power unit No. 1 of the Temelin NPP (the Czech Republic) with the VVER-1000 reactor unit (developer: JSC Afrikantov OKBM).

2,122

Certification of PJSC Energomashspetsstal for the right to control the quality of products for nuclear power plant equipment.

2,395

Completion of the development of a VVER-TOI reactor unit by JSC OKB GIDROPRESS (a standard project of an optimized computerized power unit of the technology).

2,947

Commissioning of the first experimental fast-neutron reactor with a sodium coolant (the China Experimental Fast Reactor, or CEFR) developed under the orders of the China National Nuclear Corporation (developers: JSC Afrikantov OKBM and JSC OKB GIDROPRESS).

3,668

Beginning of work at the Atomash plant for the manufacture of the reactor island for units 1 and 2 of the Belarusian NPP.

16.7

Launch of the power unit No. 2 of the Tianwan NPP (China) with a VVER-1000 reactor unit (developer: JSC OKB GIDROPRESS).

19.2

Inclusion of OJSC SverdNIIKhim Mash, a leading research and design institute, into the corporate profile of JSC Atomenergomash.

26.6

Conclusion of a contract for the design and the delivery of equipment for an experimental demonstration center (an experimental site for the development of safe innovative technologies for reprocessing spent nuclear fuel (SNF)) by OJSC SverdNIIKhim Mash.

38.9

Conclusion of a license agreement with NEM Energy B.V. (the Netherlands) in the field of promotion of boiler equipment for thermal energy.

78.9

Completion of the shipment of a full set of equipment (four steam generators and a set of embedded parts) for the power unit No. 1 of Leningrad NPP-2 by OJSC ZIO-Podolsk.

91.6

Approval of a long-term strategy until 2030, which establishes the transformation of JSC Atomenergomash into a high-tech diversified global holding as a corporate objective.

99.1

Manufacture of the first melt trap for the core of the reactor at the Baltic NPP at the Atomash plant in record time and its delivery.

150

Mastering of serial production of reactor plant equipment by OJSC PZM.

227.5

For the first time, the Company enters into contracts for the complete delivery of reactor island equipment for new nuclear power plants in the Middle East and in Northern Europe.

392.7

Completion by JSC TsKBM of test of a new design of the main circulation pump featuring a single-shaft arrangement with a water-cooled motor and water-cooled bearing units, which will increase the safety of nuclear power plants by replacing oil-based lubricants with water-based lubricants.

420.2

Commissioning of unique equipment for the industrial production of MOX fuel for fast-neutron reactors, which has been largely developed and delivered by JSC SverdNIIKhim Mash and JSC TsKBM.

10.3

Launch of the power unit No. 1 of the Tianwan NPP (China) with a VVER-1000 reactor unit (developer: JSC OKB GIDROPRESS).

11

Launch of the first steam-gas power plant in Russia built entirely on domestic equipment (the Ivanovo combined-cycle power plant) (equipment manufacturer: OJSC ZIO-Podolsk).

16

Conclusion of a license agreement with NEM Energy B.V. (the Netherlands) in the field of promotion of boiler equipment for thermal energy.

20.1

Completion of the shipment of a full set of equipment (four steam generators and a set of embedded parts) for the power unit No. 1 of Leningrad NPP-2 by OJSC ZIO-Podolsk.

50.9

Approval of a long-term strategy until 2030, which establishes the transformation of JSC Atomenergomash into a high-tech diversified global holding as a corporate objective.

51.8

Manufacture of the first melt trap for the core of the reactor at the Baltic NPP at the Atomash plant in record time and its delivery.

46.3

Mastering of serial production of reactor plant equipment by OJSC PZM.

48.6

For the first time, the Company enters into contracts for the complete delivery of reactor island equipment for new nuclear power plants in the Middle East and in Northern Europe.

227.5

Completion by JSC TsKBM of test of a new design of the main circulation pump featuring a single-shaft arrangement with a water-cooled motor and water-cooled bearing units, which will increase the safety of nuclear power plants by replacing oil-based lubricants with water-based lubricants.

392.7

Commissioning of unique equipment for the industrial production of MOX fuel for fast-neutron reactors, which has been largely developed and delivered by JSC SverdNIIKhim Mash and JSC TsKBM.

420.2

Commissioning of unique equipment for the industrial production of MOX fuel for fast-neutron reactors, which has been largely developed and delivered by JSC SverdNIIKhim Mash and JSC TsKBM.

ESTABLISHMENT OF JSC ATOMENERGOMASH IN THE FEDERAL ATOMIC ENERGY AGENCY SYSTEM IN ORDER TO EXPAND THE INDUSTRIAL AND TECHNOLOGICAL POTENTIAL OF THE MECHANICAL ENGINEERING COMPLEX OF THE RUSSIAN FEDERATION.

CREATION OF THE TARGET STRUCTURE OF JSC ATOMENERGOMASH; FORMATION OF PRODUCTION AND DESIGN COMPETENCIES AND CORPORATE PROFILES.

CONTINUATION OF ACTIVITIES IN THE FIELD OF CONSOLIDATION OF ENGINEERING ASSETS BOTH IN RUSSIA AND ABROAD.

FORMATION OF NEW DIRECTIONS OF DEVELOPMENT; EXPANSION OF THE PRESENCE IN THE SERVICE SEGMENT AND REVAMPING OF THERMAL GENERATION FACILITIES.

EXPANSION OF INTERNATIONAL COOPERATION AND FORMATION OF A VERTICALLY INTEGRATED CHAIN OF PRODUCTION OF KEY EQUIPMENT FOR NUCLEAR POWER PLANTS.

CONTINUATION OF THE FORMATION OF A PRODUCTION CHAIN FOR THE PRODUCTION OF LONG PRODUCTION-CYCLE EQUIPMENT.

THE BEGINNING OF THE RESTORATION OF THE CAPACITIES OF THE LARGEST SOVIET MANUFACTURER OF EQUIPMENT FOR NUCLEAR POWER PLANTS - THE ATOMMASH PLANT - AND THE DEVELOPMENT OF PRODUCTION OF EQUIPMENT FOR THE NUCLEAR ISLAND OF NUCLEAR POWER PLANTS.

SUCCESSFUL MASTERY OF A FULL CYCLE OF PRODUCTION OF LONG-CYCLE EQUIPMENT FOR NUCLEAR POWER PLANTS.

COMPLETION OF THE FORMATION OF A COMPLETE PRODUCTION CHAIN FOR THE PRODUCTION OF EQUIPMENT FOR THE NUCLEAR INDUSTRY (FROM DESIGN TO DELIVERY).

DELIVERY OF THE FIRST REACTOR VESSEL MANUFACTURED AT THE PRODUCTION SITE OF A ROSATOM STATE CORPORATION ENTERPRISE TO THE BELARUSIAN NUCLEAR POWER PLANT AFTER A THIRTY-YEARS' INTERRUPTION OF OPERATION AT ATOMMASH PLANT (BRANCH OF JSC AEM TECHNOLOGIES).

DELIVERY OF THE FIRST REACTOR VESSEL MANUFACTURED AT THE PRODUCTION SITE OF A ROSATOM STATE CORPORATION ENTERPRISE TO THE BELARUSIAN NUCLEAR POWER PLANT AFTER A THIRTY-YEARS' INTERRUPTION OF OPERATION AT ATOMMASH PLANT (BRANCH OF JSC AEM TECHNOLOGIES).

¹ Earlier, Rosatom State Corporation acquired these products from an external supplier.

SHIPMENT OF ATMOSPHERIC DISTILLATION COLUMN FOR THE MOSCOW REFINERY
PETROZAVODSKMASH – BRANCH OF JSC AEM TECHNOLOGIES



THE COMPANY IN BRIEF

The mechanical engineering Division of Rosatom State Corporation (the Division) is one of the largest mechanical engineering holdings in Russia.

The Company has full control over the production chain of key equipment for the nuclear island and the power island—from Research & Development and development of technical documentation to the design of industrial processes and the manufacture of equipment—and provides a complete range of solutions in the fields of design, manufacture, and delivery of nuclear-power equipment as well as equipment for the thermal power, gas and petrochemical, and ship-building industries and the market for special steels.

The Division combines the largest mechanical engineering enterprises (including production, research and engineering organizations) in Russia, Ukraine, the Czech Republic, and Hungary.

GRI 102-1, 102-5

THE COMPANY IN BRIEF

JSC ATOMENERGOMASH IS ONE OF THE BIGGEST
MECHANICAL ENGINEERING HOLDING COMPANIES
IN RUSSIA

2016 PERFORMANCE HIGHLIGHTS

GRI 102-7

ECONOMIC PERFORMANCE

Combined revenue: **63.4 billion rubles** | EBITDA: **6.7 billion rubles** | Share of revenue from new businesses²: **44%**

² The new directions of development of JSC Atomenergomash are the markets of related products in the areas of thermal power engineering, gas and petrochemical industry, shipbuilding, etc.

OPERATING PERFORMANCE

Timely delivery of equipment under the concluded contracts is **100%** | Products shipped to **20 nuclear power plants**

COMMERCIAL ACTIVITIES

Order portfolio at the year-end: **420.2 billion rubles** | Total value of concluded contracts: **135.1 billion rubles** | Share of new product orders in the total order portfolio: **47%**

EFFICIENCY IMPROVEMENT

Effect of the RPS introduction: **841 million rubles** | Income from sales of non-core assets: **694 billion rubles** | Labor productivity growth: **25%**

STAFF CAPACITY

Share of specialists under 35 years old: **34%** | Share of employees with seniority of more than 5 years: **71%** | Engagement level – **77%**

SCIENTIFIC ACTIVITIES

81 patents and intellectual property certificates have been received. | **301** scientific publications have been made | Attracted R&D investments: **258 million rubles**

SOCIAL RESPONSIBILITY

Paid to the budget: **5.8 billion rubles** | Charity and veteran support expenses: **52,6 million rubles**

ENVIRONMENTAL RESPONSIBILITY

Reduction of the total mass of waste is **9%** | Spending on environmental protection: **108 million rubles**

KEY EVENTS IN 2016

NUCLEAR POWER

- JSC Atomenergomash has manufactured and shipped the VVER-1200 reactor vessel for the power unit No. 2 of the Belarusian NPP.
- The launch of the innovative (the generation «3+») power unit No. 1 at Novovoronezh NPP-2, the key equipment for which was supplied by the enterprises of JSC Atomenergomash, was held.
- JSC OKB GIDROPRESS concluded a contract for the development of documentation for the technical design of the VVER-1200 reactor plant for the Khankhikivi-1 nuclear power plant.
- JSC SNIIP received the Certificate of Conformity of the Management System to the requirements of the ISO 9001:2008 standard for the first time.

THERMAL POWER

- PJSC ZiO Podolsk and NEM Energy B.V. (The Netherlands), a member of Siemens AG (Germany), signed an Agreement on the expansion of cooperation in the field of engineering and production of boiler equipment with a capacity below 50 MW.
- At the Kirov CHPP-3, the wastewater treatment plant that was developed and delivered by JSC SverdNIKhimmash was successfully launched.

GAS AND PETROCHEMICAL INDUSTRY

- JSC SverdNIKhimmash won a tender for the delivery of a wastewater treatment complex for the subsidiary of the largest petrochemical holding (PJSC SIBUR Holding).

SPECIAL STEELS

- At PJSC Energomashspetsstal, a unique ingot weighing 125 tons was cast to produce the shell of the hull of the high-pressure steam generator under the project of the Kudankulam NPP.
- JSC NPO TsNIITMASH presented the first domestic industrial 3D printer for metal products developed jointly with JSC Science and Innovations.

SHIPBUILDING AND FNPP³

- JSC Atomenergomash produced and supplied the customer with the latest RITM-200 reactor units for the new-generation Arktika icebreaker.
- Specialists of PJSC Energomashspetsstal developed and mastered the production of new products (Hall anchors for vessels of all kinds).

MINI-HYDRO-ELECTRIC POWER PLANTS⁴

- Ganz EEM LLC signed the first official contract for the delivery of a container-type mini-HPP with International Energy Company LTD (Georgia), which develops the hydropower line of business.

³ Floating nuclear power plant

⁴ Equipment for small hydro generation: container mini-hydro power plants

MESSAGE FROM COMPANY MANAGEMENT

GRI 102-14

Dear colleagues and partners,

I am pleased to present to you the Integrated Annual Report of JSC Atomenergomash for 2016. The report focuses particularly on production, financial, social and environmental issues related to the activities of the Mechanical Engineering Division of Rosatom State Corporation.

In the reporting year, JSC Atomenergomash celebrated its tenth anniversary since its creation. During this time, the management had done a tremendous job, thanks to which a small company had become a multi-profile holding company with well-defined specialization of enterprises, an understandable management structure, and a clear development strategy. The Company's portfolio of orders had been increased by more than fourfold in the past five years (from 99 to 420 billion rubles).

One of the important production achievements of the Company in 2016 was the timely shipment of the RITM-200 reactor facilities for the new-generation Arktika icebreaker. At the request of the customer, the reactor vessel

for the second power unit of the Belarusian NPP was manufactured and shipped ahead of schedule. In the reporting year, the world's first power unit of generation «3+» was connected to the network at the Novovoronezh NPP, and a new BN-800 fast neutron power unit at Beloyarsk NPP was commissioned. The creation of unique power units would not have been possible without an active participation from the Company's enterprises, which designed reactor plants and supplied the main and auxiliary equipment to the power plants.

I would also like to acknowledge the excellent work done by JSC Atomenergomash and its enterprises in the field of development of new products for non-nuclear sectors of the

economy. In particular, a major tender for the design and the complete delivery of water purification equipment for a petrochemical plant under construction for the processing of hydrocarbons in Tobolsk was won in the gas and petrochemical industry. In general, the share of new businesses in total revenue in 2016 was 43.7%.

The company is systematically working to increase efficiency and to reduce costs and time of production processes. In particular, opportunities were found in 2016 to reduce the production time of the Nuclear Steam Generating Plant by 20%, and the inventory turnover increased at enterprises. The company exceeded the plan for the sale of non-core assets and

THE SHARE OF NEW BUSINESSES IN TOTAL REVENUE IN 2016 WAS 43.7%

Ekaterina Lyakhova

Chairwoman of
the Board of Directors of
JSC Atomenergomash

Director of Investment Management
and Operational Efficiency
at Rosatom State Corporation

assets and gained a total of about 0.7 billion rubles. In general, the EBITDA margin increased by 7% in 2016 and amounted to 11% due to efficiency improvement measures.

The results achieved by the Mechanical Engineering Division and the foundations that have been laid for future success are all due to the team of top professionals of Atomenergomash. On behalf of Rosatom State Corporation, I would like to thank the Company for the work done in 2016, and its management and employees for their commitment and professionalism. I am confident that all our achievements will provide a firm base for JSC Atomenergomash to establish itself as a leader in the global mechanical engineering industry in the future!



Dear shareholders, customers, colleagues:

I present to you the 2016 Annual Report of the Mechanical Engineering Division of Rosatom State Corporation – JSC Atomenergomash.

The reporting year became an anniversary one for the Company, and it is possible to sum up some results of the first decade. First of all, I would like to note that we managed to collect a really effective and professional team that is sincerely interested in the development of the Company and is aimed at achieving all the expected results. In many respects, this has allowed JSC Atomenergomash to turn a disparate set of assets into a single structured holding in a short time.

As a result, today the Company is a complete supplier of equipment for the nuclear island and the nuclear power plant's computer rooms and is one of the main players in the markets for the production of equipment for thermal power, gas and petrochemical industries, and shipbuilding. The Company's order portfolio reached an amount of 420 billion rubles in 2016. Revenue for the reporting year amounted to 63.4 billion rubles. At the same time, the maximum revenue in non-nuclear businesses in four years was achieved (its share in the total revenue of the Division was almost half).

Measures aimed at increasing the efficiency and the development of the Company's enterprises are bringing fruit. In particular, JSC SNIIP received a record revenue of 3.9 billion rubles in 2016, which is 67% more than in 2015 (in five years, the company's revenue increased nine-fold). JSC TsKBM successfully completed the reconfiguration project (as a result, the EBITDA of the enterprise grew by a factor of 11 from 2012 to 2016).

The reporting year was full of production events. RITM-200 innovative reactor units for the new-generation Arktika icebreaker (the first new generation reactors and the first ship plants completely manufactured in the Division corporate profile) were installed. The project was implemented by JSC Afrikantov OKBM as a designer and a complete supplier, PJSC ZiO-Podolsk as a manufacturer of hull equipment, JSC NPO TsNIITMASH, which provided material support, and by other enterprises. During the execution of production operations, our specialists developed several new technologies and tools. Now, the manufacture of equipment for serial icebreakers is underway in accordance with the schedule.

The Volgodonsk branch of Atomenergomash confidently confirms its competence of a manufacturer of equipment of reactor islands of nuclear power plants. In October 2016, the second reactor vessel was shipped to the Belarusian nuclear power plant. During the manufacturing process, our specialists carried out the whole complex of tests which confirmed the high quality and reliability of the product. The manufacture of steam generators for the Belarusian NPP was completed; the production of equipment for the multi-purpose fast-neutron research reactor MBIR began; and large projects are being implemented for other power plants in Russia and abroad. In 2016, JSC TsKBM sent the last set of main circulation pumps for the first power unit of the Belarusian nuclear power plant.

In August, an important event took place not only for Rosatom State Corporation but for the entire world nuclear power industry: the power unit of the generation 3+ at Novovoronezh NPP was connected to the network and produced the first megawatts to the country's power system. This power unit has improved technical and economic performance, provides absolute safety in operation, and fully complies with the IAEA post-Fukushima requirements. This is a great success of JSC OKB GIDROPRESS as a developer and designer, which, in particular, provided start-up operations, as well as of all the enterprises of the Division that were suppliers of key and auxiliary equipment of the reactor island.

A major breakthrough was made in the development of fast reactors. The power unit No. 4 with the BN-800 reactor developed by OKBM Afrikantov JSC was commissioned at Beloyarsk NPP. This is a significant step forward in closing the nuclear cycle, as well as in creating a commercial product based on fast reactor technology for foreign markets.

A large amount of work was done by all the enterprises of the Company to implement the project for the complete delivery of reactor island equipment for the Hanhikivi NPP in Finland. All audits planned by the customer in 2016 were successfully passed, and positive conclusions were received. This plant will be built according to European standards and requirements, and the Finnish legislation regulating the nuclear industry is considered one of the strictest in the world. Therefore, our task at the current stage

is to successfully complete the passage of the remaining audits, to finally confirm our competence of a manufacturer and a supplier of equipment to the customer and the regulator, and to start production in time.

An important result of the activity was also the 100% implementation of the state defense order by all enterprises of the Company.

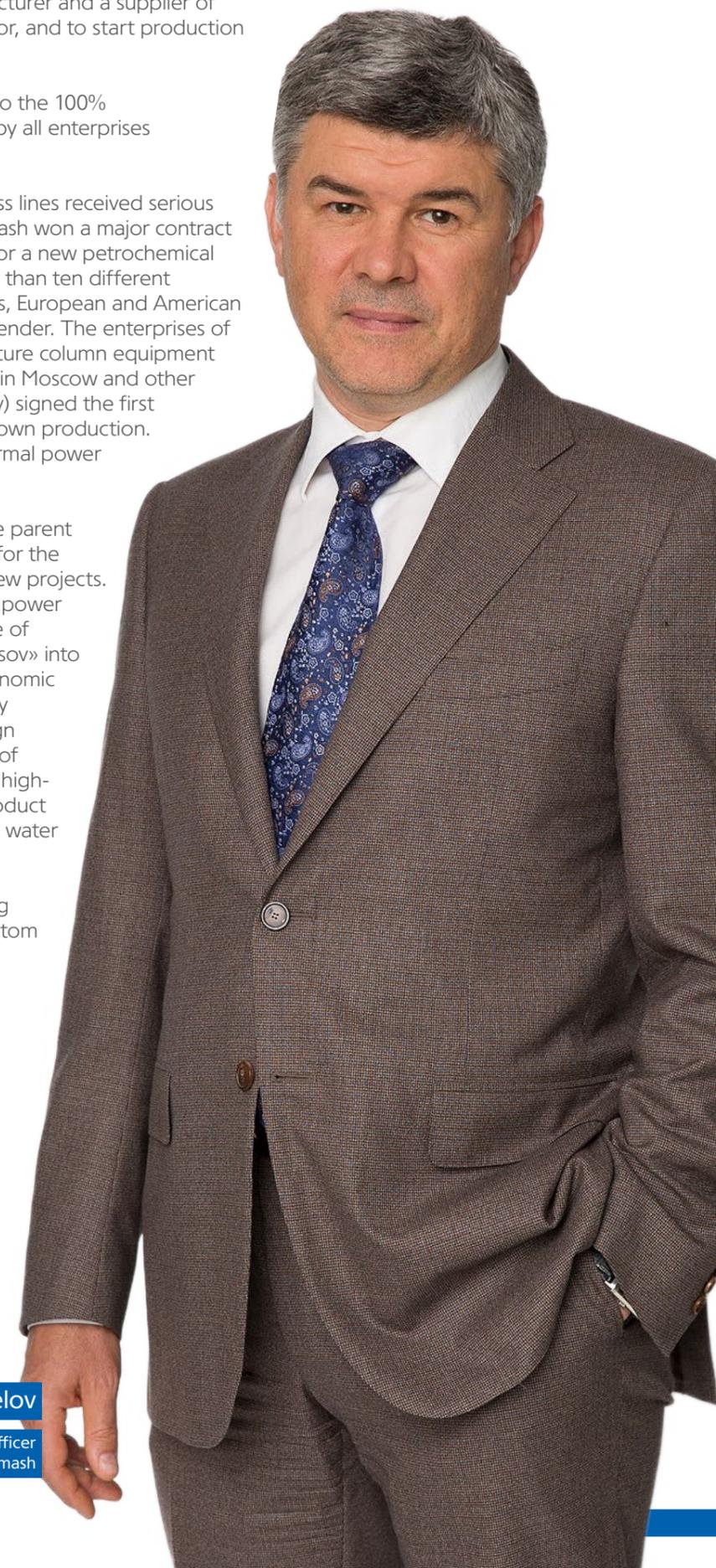
In the reporting year, non-nuclear business lines received serious development. In particular, JSC SverNIIhimsmash won a major contract for the delivery of a water treatment plant for a new petrochemical enterprise despite the participation of more than ten different companies that offered, among other things, European and American wastewater treatment technologies, in the tender. The enterprises of JSC AEM Technologies continue to manufacture column equipment for the modernization of three oil refineries in Moscow and other cities of the country. Ganz EEM Ltd (Hungary) signed the first contract for the delivery of mini-HPPs of its own production. Large contracts are implemented in the thermal power engineering sector.

Since 2016, the Company has become the parent organization of Rosatom State Corporation for the development and implementation of two new projects. The first is the creation of a floating nuclear power plant, which must take the entire experience of creating a floating NPP «Akademik Lomonosov» into account, obtain improved technical and economic parameters, and provide a new commercially attractive product for the Russian and foreign markets. The second project is the creation of demineralization complexes integrated with high-capacity nuclear power plants, as well as product solutions in the field of water treatment and water purification.

Enhancing production efficiency, including through further implementation of the Rosatom Production System, fulfilling all contractual obligations in a timely manner, increasing the revenue across all business lines, and participating actively in import substitution programs will remain our strategic priorities in 2017. In conclusion, I would like to thank our customers and partners for their trust and constructive cooperation, and to thank the entire team for professionalism and involvement in achieving the Company's objectives. I am confident that we will be able to ensure the same dynamic development of JSC Atomenergomash in the next ten years of the Company's life while being guided by the principles of responsibility and respect.

Andrey Nikipelov

Chief Executive Officer
of JSC Atomenergomash



SHIPMENT OF VVER-1200 REACTOR FOR THE POWER UNIT NO. 2 OF THE BELARUSIAN NPP
ATOMMASH – BRANCH OF JSC AEM-TECHNOLOGIES

1.1. BUSINESS MODEL

A value chain—from the used resources to the finished product and its key sales channels—lies at the core of the business model of JSC Atomenergomash. The business model also reflects the assessment of the added value (fixed capital gains) in the reporting year both for the Company in terms of its strategic objectives and for the stakeholders in terms of their basic needs. Detailed information on the capitals is disclosed in the relevant sections of the Report.

Unique production capabilities allow us to offer our customers the key equipment for nuclear power plants in accordance with the highest standards. The quality and the timing of manufacture of equipment are ensured through a well-functioning production chain and a close cooperation among the enterprises of the Division. The high degree of vertical integration allows JSC Atomenergomash to participate in the projects of Rosatom State Corporation in the field of implementation of a full production cycle at nuclear power plants from scientific research and design to delivery of equipment to the nuclear power plant.

1. THE COMPANY'S BUSINESS MODEL AND DEVELOPMENT STRATEGY

A VALUE CHAIN LIES AT THE CORE OF THE BUSINESS
MODEL OF JSC ATOMENERGOMASH

THE PUBLIC BUSINESS MODEL OF THE DIVISION

THE MISSION OF THE COMPANY: TO ESTABLISH AND DEVELOP GLOBALLY COMPETITIVE TECHNOLOGICAL SOLUTIONS FOR THE POWER INDUSTRY IN ORDER TO MAINTAIN A COMFORTABLE LIFE FOR PEOPLE AND TO ACHIEVE GROWTH IN THE COMPANY'S BUSINESS PERFORMANCE.

01 RESOURCES

Personnel Composition
Human capital: more than 18,000 qualified employees

Infrastructure
Production capital: unique production facilities and modern equipment park

Financial and economic status
Financial and economic capital: the growing revenue provided by the increase in the portfolio of orders and the increase in business efficiency

Technologies
Innovative capital: a balanced portfolio of actively developing traditional and promising energy technologies

02 MAIN ACTIVITIES

Activities by business areas

Nuclear Power
Reactor compartment equipment, turbine plant equipment, and auxiliary equipment for nuclear power plants.

Shipbuilding and FNPP
Various types of equipment for shipbuilding and floating NPPs

Thermal Power
Boiler and auxiliary equipment for thermal power engineering

TMES
Reactor units for nuclear icebreakers, marine vessels and FNPPs

Special Steels
Special cast steel and forged products

Gas and Petrochemical Industry
Equipment for oil and gas refining for refineries and offshore platforms

Pure Water
Equipment for demineralization, water treatment, and wastewater treatment for municipal and industrial needs

General equipment
Special machinery and components for heavy machinery

Mini Hydro Power Plant
Equipment for small hydro-generation (container mini-HPP)

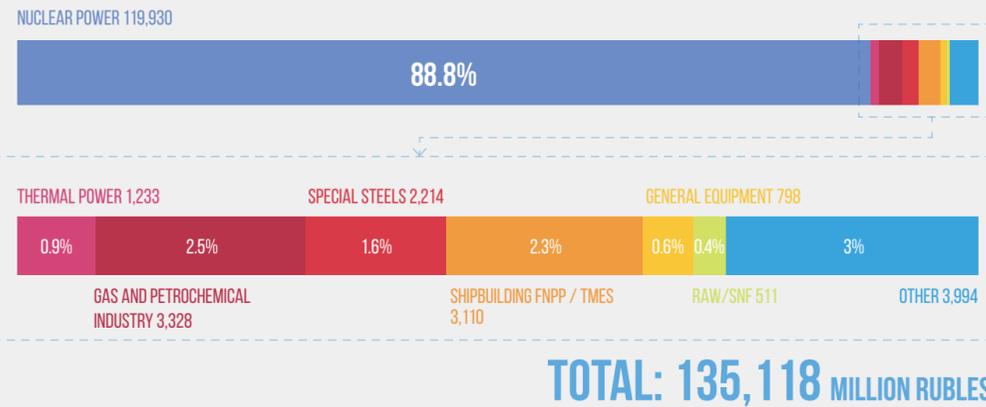
RAW/SNF
Equipment for storage and transportation and processing for RAW/SNF

03 MARKETING

1. DESIGN OF EQUIPMENT
2. MANUFACTURE OF EQUIPMENT
3. DELIVERY OF EQUIPMENT
4. INSTALLATION AND COMMISSIONING WORKS
5. SERVICE AND REVAMPING

TOTAL ORDER BOOK: 420.2 BILLION RUBLES NET OF VAT

Structure of contracts concluded in the reporting year by operating segment:



04 VALUE CREATION FOR THE COMPANY:

Personnel Composition
Increase in the staff efficiency level and development of staff capacity

- Increase in the share of employees with higher education – 3%
- Increase in the engagement level – 2%
- Increase in labor productivity – 25%

Infrastructure
Increasing the efficiency and flexibility of production capacity:

- Volume of performed investments: more than 4.2 billion rubles
- Increase in the level of fulfillment of the production plan – 12%

Financial and economic status
Ensuring economic efficiency and sustainability of business:

- Increase in combined revenue – 12%
- Income from the sale of non-core assets: 694 million rubles

Technologies
Ensuring product competitiveness and technological leadership:

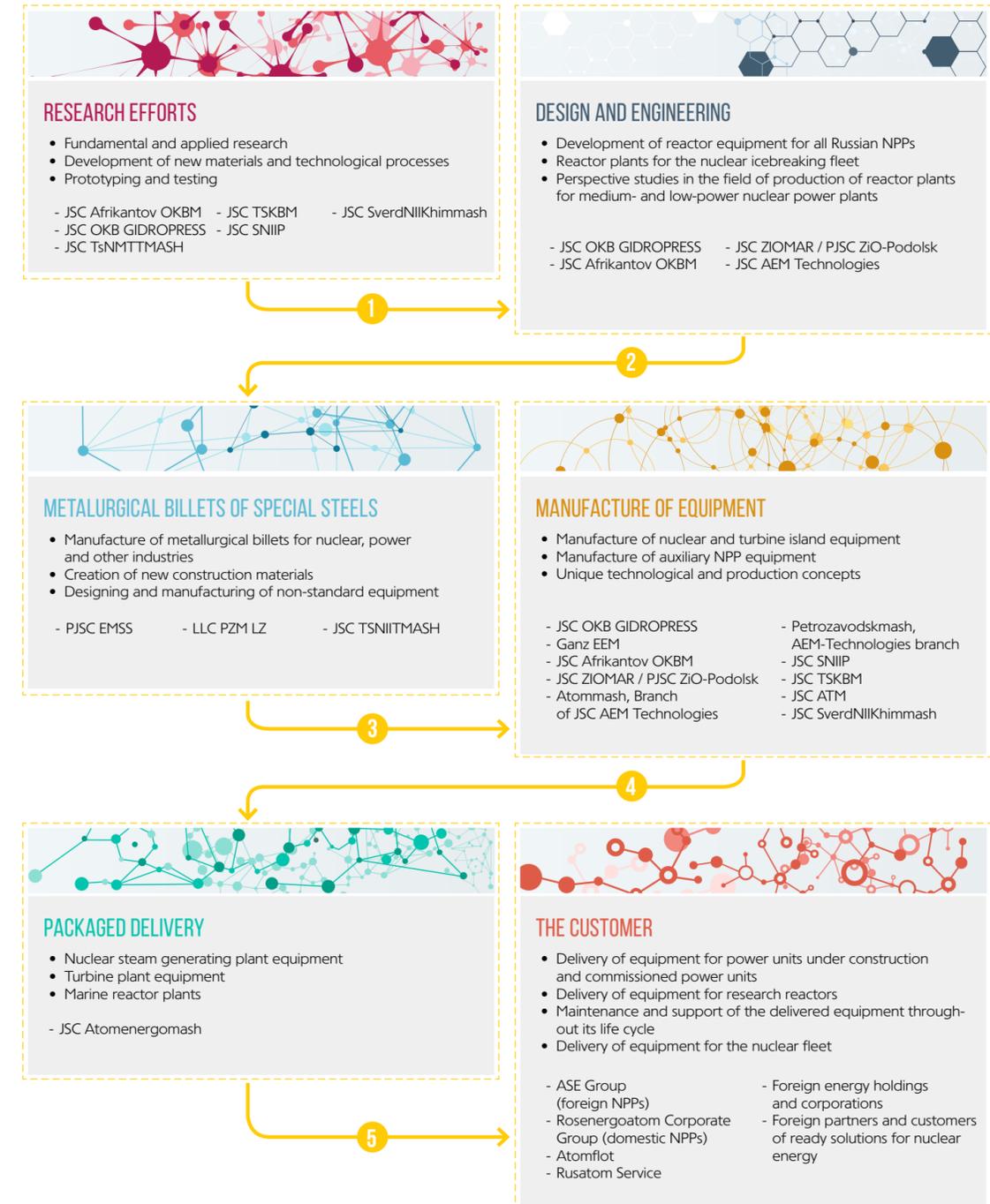
- 81 patents and intellectual property certificates have been received
- Published scientific papers and articles: 301 pcs

VALUE CREATION FOR STAKEHOLDERS:

Natural capital:
· Reduction of the weight of waste – 9%
· Reduction of N₂O emissions – 32%

Social capital:
· Paid to the budget (charged): 5.9 billion rubles
· Charity expenses: 24 million rubles

INDUSTRIAL CHAIN FOR THE DIRECTION OF “ATOMIC ENERGY”



SPECIALIZATION OF THE DIVISION'S ENTERPRISES

DIVISION'S ENTERPRISES	NUCLEAR POWER	SHIPBUILDING AND FNPP	TMES ⁵	THERMAL POWER	GAS AND PETROCHEMICAL INDUSTRY	SPECIAL STEELS	GENERAL EQUIPMENT	WATER DEMINERALIZATION, TREATMENT, AND PURIFICATION	MINI-HYDRO-ELECTRIC POWER PLANTS	RAW/SNF ⁶
JSC AEM TECHNOLOGIES	○	○			○			○		○
PJSC ZIO-PODOLSK	○	○	○	○	○		○	○		
JSC ZIOMAR EC	○			○	○					
JSC TSKBM	○									
JSC OKB GIDROPRESS	○		○							
JSC AFRIKANTOV OKBM	○	○	○		○					
ARAKO	○	○		○	○					
JSC SVERDNIKHIMMASH	○						○			○
GANZ EEM	○				○					○
JSC SNIIP	○	○	○							
LLC AAEM	○									
EMSS	○		○	○		○				
ATM	○			○	○					
JSC TSNITMASH	○			○		○		○		

KEY MARKET PROJECTS IN 2016

GRI 102-6

To ensure economic stability and to expand the activities of the Division in key energy markets, business lines have been formed that unite enterprises in key product segments.

GRI 102-2

Nuclear power

- 1 **Kurchatov, Russia**
Kursk NPP, Kursk NPP-2
- 2 **Balakovo, Russia**
Balakovo NPP
- 3 **Volgodonsk, Russia**
Rostov NPP
- 4 **Sosnovy Bor, Russia**
Leningrad NPP, Leningrad NPP-2
- 5 **Novovoronezh, Russia**
Novovoronezh NPP, Novovoronezh NPP-2

- 6 **Zarechny, Sverdlovsk Oblast, Russia**
Beloyarsk NPP
- 7 **Polyarnye Zori, Russia**
Kola NPP
- 8 **Desnogorsk, Russia**
Smolensk NPP
- 9 **Udomlya, Russia**
Kalinin NPP
- 10 **Metsamor, Armenia**
Armenian NPP

- 11 **Ostrovets, Belarus**
Belarusian NPP
- 12 **Kudankulam, India**
Kudankulam NPP
- 13 **Tianwan, China**
Tianwan NPP
- 14 **Pyhäjoki, Finland**
Hanhikivi NPP
- 15 **Temelin, Czech Republic**
Temelin NPP

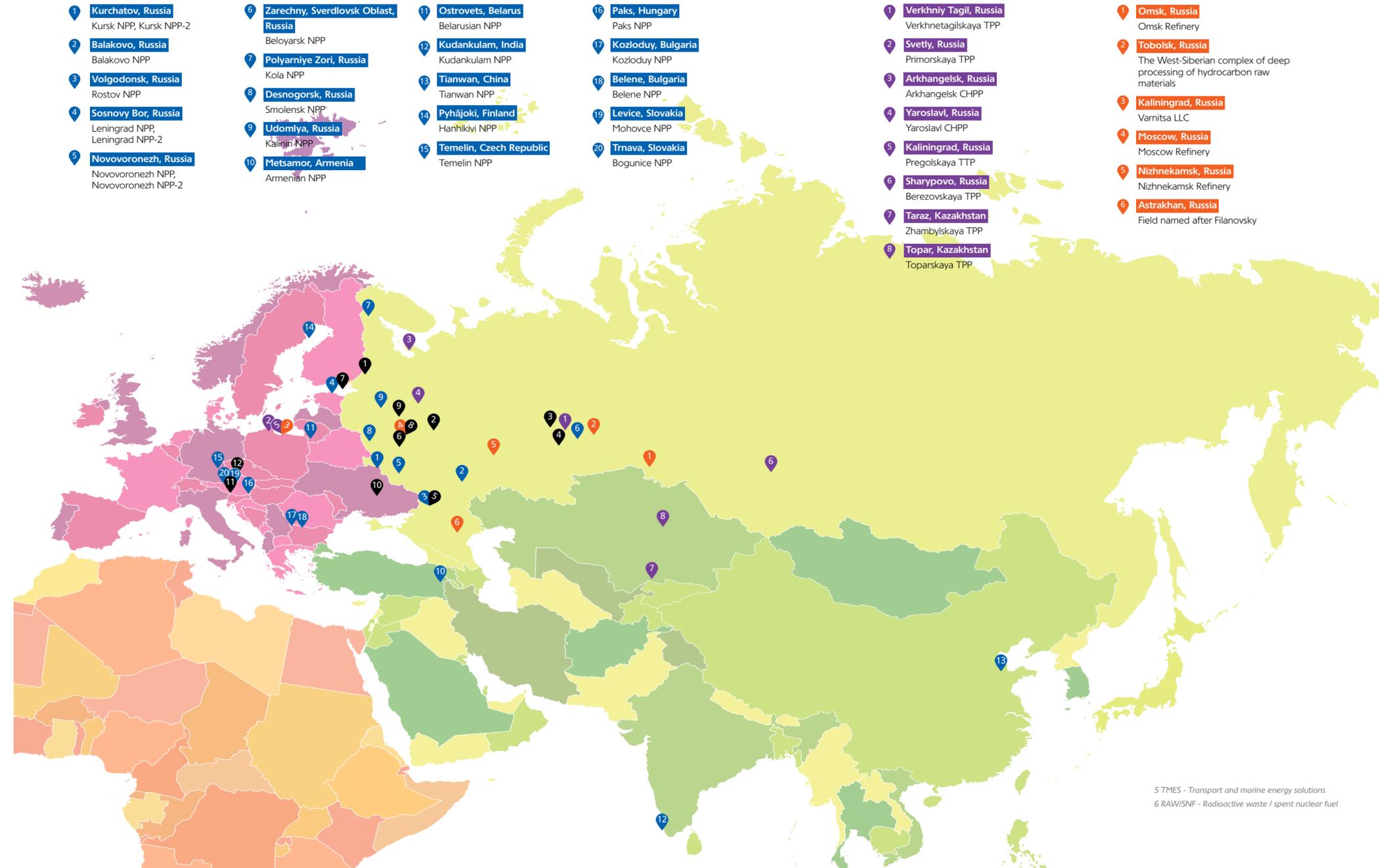
- 16 **Paks, Hungary**
Paks NPP
- 17 **Kozloduy, Bulgaria**
Kozloduy NPP
- 18 **Belene, Bulgaria**
Belene NPP
- 19 **Levice, Slovakia**
Mohovce NPP
- 20 **Trnava, Slovakia**
Bogunice NPP

Thermal power

- 1 **Verkhniy Tagil, Russia**
Verkhnetagilskaya TPP
- 2 **Svetly, Russia**
Primorskaya TPP
- 3 **Arkhangelsk, Russia**
Arkhangelsk CHPP
- 4 **Yaroslavl, Russia**
Yaroslavl CHPP
- 5 **Kaliningrad, Russia**
Pregolskaya TTP
- 6 **Sharypovo, Russia**
Berezovskaya TPP
- 7 **Taraz, Kazakhstan**
Zhambylskaya TPP
- 8 **Topar, Kazakhstan**
Toparskaya TPP

Gas and petrochemical industry

- 1 **Omsk, Russia**
Omsk Refinery
- 2 **Tobolsk, Russia**
The West-Siberian complex of deep processing of hydrocarbon raw materials
- 3 **Kaliningrad, Russia**
Varnitsa LLC
- 4 **Moscow, Russia**
Moscow Refinery
- 5 **Nizhnekamsk, Russia**
Nizhnekamsk Refinery
- 6 **Astrakhan, Russia**
Field named after Filanovsky



ASSETS OF THE COMPANY

GRI 102-4, 102-7

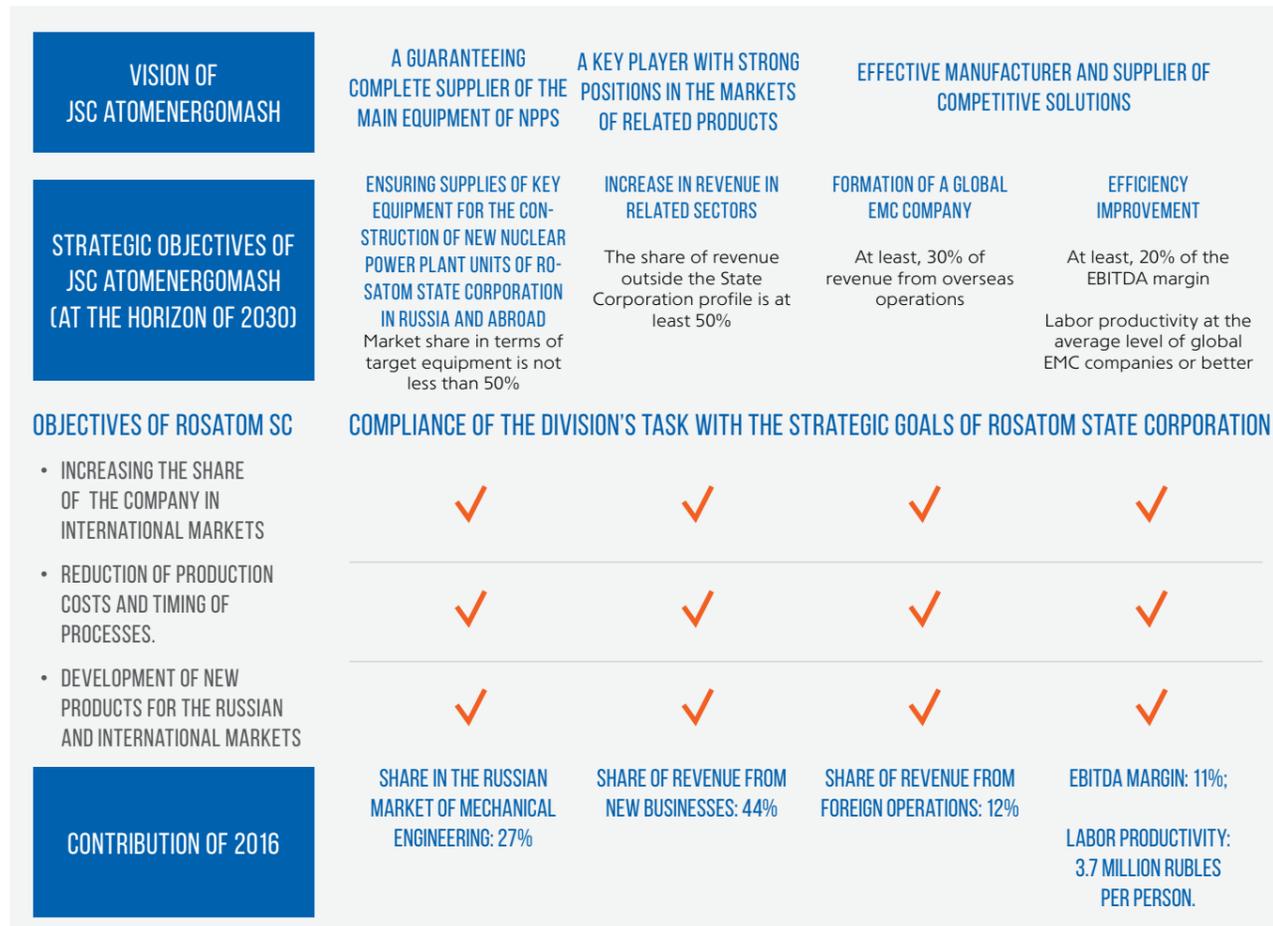
- 1 **Petrozavodsk, Russia**
Petrozavodskmash branch of JSC AEM Technologies LLC PZM LZ
- 2 **Nizhny Novgorod, Russia**
JSC Afrikantov OKBM
- 3 **Nizhnaya Tura, Russia**
OJSC Venta
- 4 **Ekaterinburg, Russia**
JSC SverdNIKHimmash
- 5 **Volgodonsk, Russia**
Atomash branch of JSC AEM Technologies
- 6 **Podolsk, Russia**
JSC OKB Gidropress PJSC ZIO-Podolsk JSC ZIOMAR EC
- 7 **St Petersburg, Russia**
JSC TSKBM JSC AEM Technologies LLC AAEM
- 8 **Moscow, Russia**
JSC Atomenergomash JSC NPO TSNITMASH JSC VNIIAM JSC ATM JSC SNIIP JSC OKTB IS JSC OZTMITs
- 9 **Dubna, Russia**
JSC IFTP
- 10 **Kramatorsk, Ukraine**
PJSC ENERGO-MASH-PETSTAL
- 11 **Budapest, Hungary**
Ganz EEM LLC
- 12 **Opava, the Czech Republic**
ARAKO spol. s.r.o.

⁵ TMES - Transport and marine energy solutions
⁶ RAW/SNF - Radioactive waste / spent nuclear fuel

1.2. STRATEGIC VISION AND OBJECTIVES

In 2016, JSC Atomenergomash continued the implementation of the development strategy of the Division until 2030, which involves the transformation of the Company into a high-tech diversified holding that will be competitive in the global market and

sustainable in the long term. The strategic objectives of the Company are developed on the basis of three key long-term objectives of Rosatom State Corporation.



The Company has been set the following strategic objectives:

- expanding the presence of the Division's enterprises in related sectors (thermal power, gas and petrochemical industry, shipbuilding and Floating Nuclear Power Plants, mini-hydro-electric power plants, and water demineralization, treatment, and purification);
- development of international cooperation with global leaders through incorporation into their production chains, alliance building, and localization of advanced foreign technologies in Russia;
- globalization of operations, including the localization of production in priority regions where the Company operates;
- expansion of the list of services, incl. post-sale services;
- improving the efficiency of production activities through the implementation of cost-cutting, technological development and R&D programs aimed at introducing advanced and highly efficient design and manufacturing processes;
- implementing programs to improve product quality and develop personnel.

1.3. COMPANY POSITION IN THE MARKET⁷

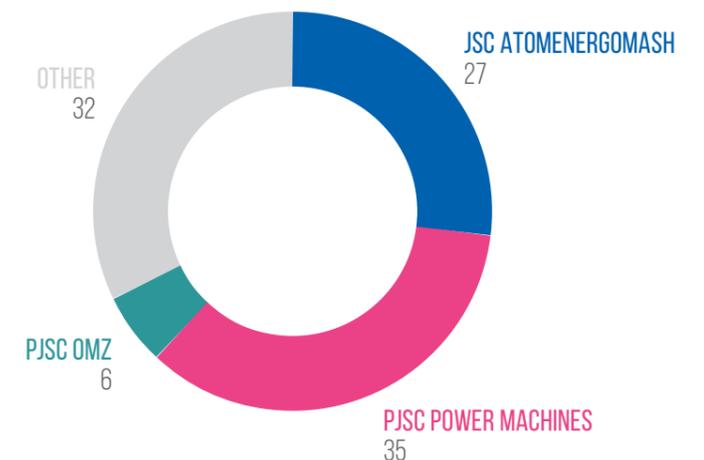
In 2016, the world market of mechanical engineering demonstrated an insignificant growth (its capacity was about 110 billion US dollars). The structure of the market remained virtually unchanged, and the bulk of investment (about 60%) was directed to equipment for thermal power generation. The share of thermal power equipment was 25%; the share of nuclear power equipment was 15%.

According to the forecast for the development of the world's energy industry up to 2040, the Institute for Energy Studies of the Russian Academy of Sciences does not expect any drastic changes in the structure of energy consumption in the world in terms of fuel types. Hydrocarbons will still retain their unconditional dominance in the fuel basket (their share by 2040 will be 51.4% against about 53% at the current time). The forecast for the development of nuclear energy is moderately optimistic scenario (its share will remain at 6% with an increase in absolute values). It is forecast that the structure of the mechanical engineering market will retain a prevailing share of equipment for thermal generation in the coming years.

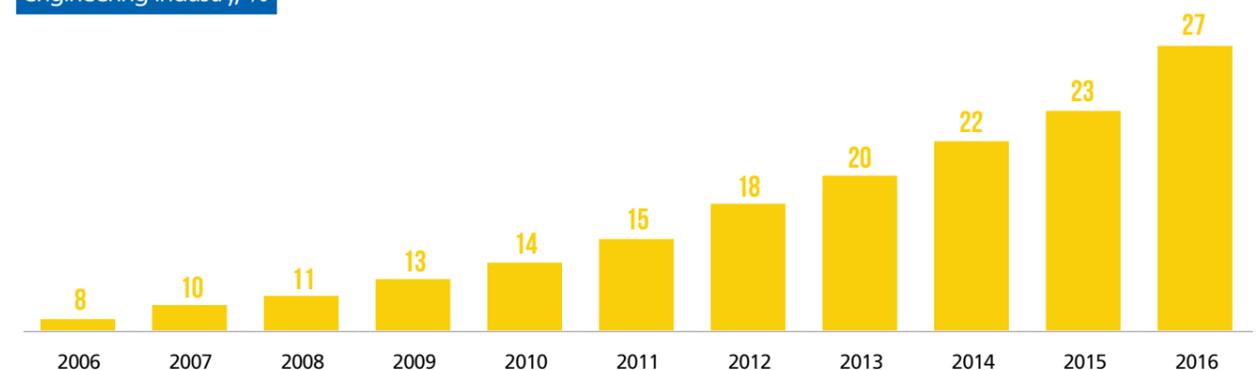
Tendencies in the Russian market for power plant engineering correspond to the global ones, of which 60% is thermal power equipment, 29% is gas and petrochemical equipment, and 11% is nuclear power equipment.

The Russian mechanical engineering market is currently estimated at about USD 350 billion a year. Given the forecasts of the development of the domestic economy in the coming years, there may be a moderate decrease in demand for energy resources, as well as a decrease in the rates of growth of energy consumption in the country. Thus, the average annual growth of the domestic market of mechanical engineering in the long term until 2030 will be within 1-2%; and the main trend will be to increase competition among domestic producers and to reduce imports of energy equipment and its components.

Share of the Russian mechanical engineering industry, %



Share of the Russian mechanical engineering industry, %



⁷ Expert evaluation based on data of the Rosstat, RBC analytical reviews, and the Institute for Energy Studies of the Russian Academy of Sciences



NUCLEAR POWER

JSC Atomenergomash supplies key equipment to all NPPs under construction in Russia as well as to a number of foreign nuclear power plants. The equipment produced by the Division enterprises is installed at 14% of nuclear power plants in the world.

The Division is a reference supplier of a wide range of equipment for the reactor island and the engine room of nuclear power plants.

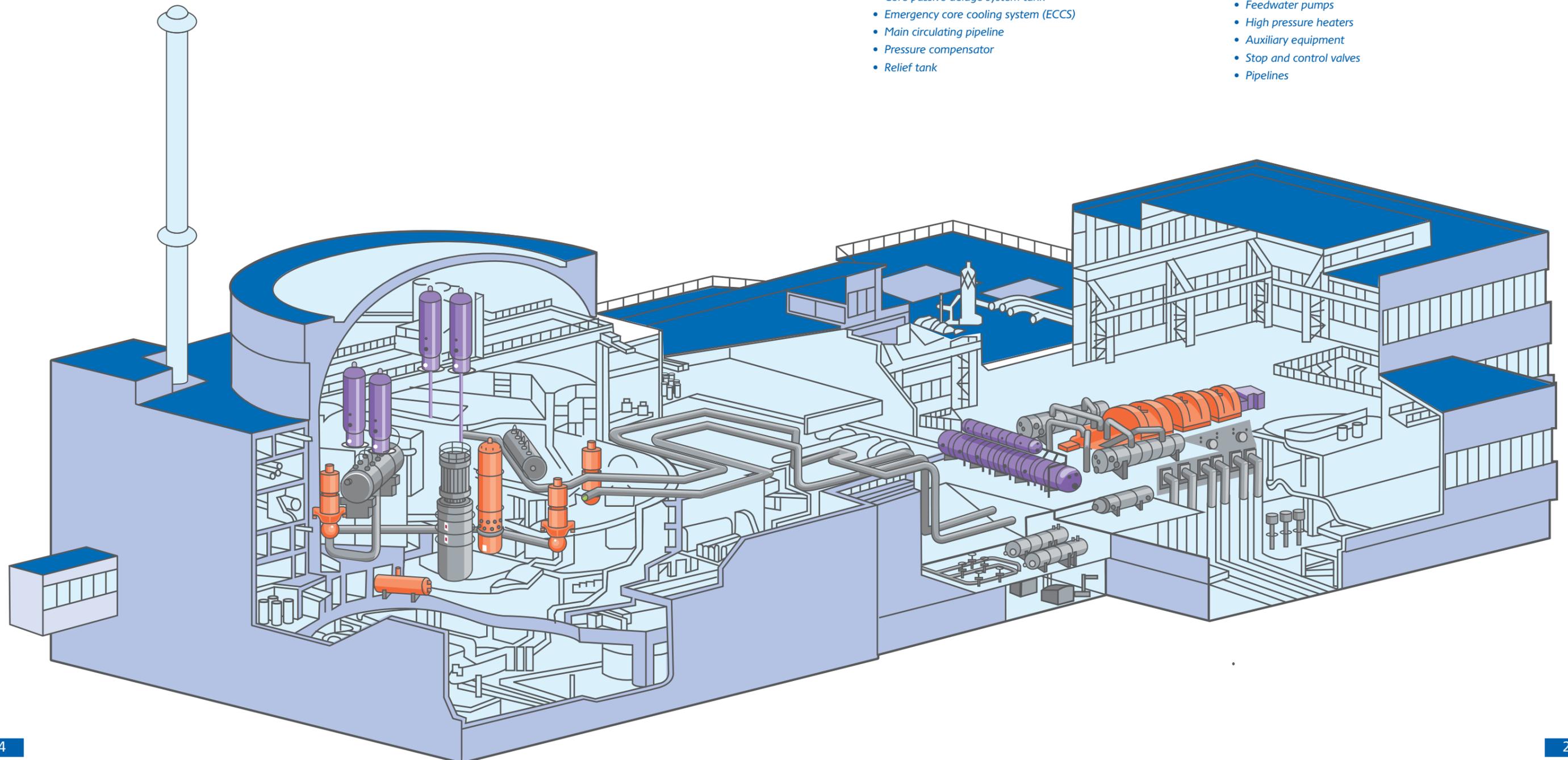
The volume and the geography of nuclear power markets for JSC Atomenergomash are defined by the Road Map of Rosatom State Corporation for the

construction of new nuclear power units in Russia and abroad, which has shown significant growth in recent years as regards foreign projects.

Service projects are being implemented: the Division enterprises (PJSC ZiO-Podolsk, JSC TsKBM, JSC OKB GIDROPRESS, JSC SNIIP) signed a number of agreements with the integrator of services of Rosatom State Corporation – JSC Rusatom Service –

for the revamping and delivery of equipment, as well as conducting research and development, in 2016 as part of the extension of the life of Unit 2 of the Armenian Nuclear Power Plant. In addition, JSC Atomenergomash and JSC Rusatom Service have formed a joint work plan for the medium term with respect to the ongoing service projects in Central and Eastern Europe, China, India and other countries.

EQUIPMENT FOR NPPS SUPPLIED BY THE ENTERPRISES OF THE DIVISION



PACKAGED SUPPLY OF LONG-LEAD EQUIPMENT FOR NUCLEAR STEAM SUPPLY (NSSS) AND TURBINE ISLAND PACKAGED SUPPLY OF NSSS

- Reactor assembly
- Supporting and thrust rings
- CPS drives
- Steam generator
- Main circulating pump
- Core passive deluge system tank
- Emergency core cooling system (ECCS)
- Main circulating pipeline
- Pressure compensator
- Relief tank

PACKAGED SUPPLY OF NUCLEAR TURBINE ISLAND

- ARABELLE™ steam turbine
- GIGATOP 4-pole turbogenerator
- Moisture separator reheaters
- Turbine condenser
- Condensate extraction pumps
- Low pressure heaters
- Deaerator and feedwater storage tank
- Feedwater pumps
- High pressure heaters
- Auxiliary equipment
- Stop and control valves
- Pipelines



THERMAL POWER

JSC Atomenergomash takes the leading positions in the market for thermal power equipment: the competence of the enterprises of the Division allows participating in the projects of TPP construction at all stages from design to the provision of post-sale services.

The target market for the Company is the Russian market for heat-power capacities under commissioning. At the same time, the Division is stepping up cooperation in the field of revamping of power equipment in Russia and in the markets of CIS countries, primarily in Kazakhstan.

Since 2009, partnership relations of PJSC ZIO-Podolsk and JSC ZIOMAR EC with the leading European company in the field of engineering of waste heat boilers NEM Energy B.V. (the Netherlands) within the framework of the License Agreement on cooperation in the field of engineering of waste heat boilers. In addition to the already implemented projects (PGU-190 at Novomoskovskaya GRES, PGU-420 at Yuzhnouralskaya GRES-2, and PGU-400 at Nizhnevartovskaya GRES), an addendum to the agreement was signed in April 2016 which covered modular hot-water boilers for gas turbine units with a capacity ranging from 10 to 70 MW.

The market volume is defined both by the General Layout of Electric Power Industry Facilities in the Russian Federation until 2020 and by the need of generating companies in revamping and servicing of thermal power plants.

The main share of the revenue in this area is generated by boiler equipment (steam boilers for power units with capacities ranging from 50 MW to 800 MW and downstream heat recovery steam generators for modern combined-cycle plants with a power unit capacity of up to 800 MW).

In 2016, contracts were concluded for the delivery of P-67 boiler elements to Berezovskaya GRES, heating surfaces for waste heat boilers to Pregolskaya TPP, and heating surfaces for steam boilers to Primorskaya TPP.

The main challenge for the development of this business line in 2016 was a decline in demand and increased price competition in the local market. As compensatory measures, JSC Atomenergomash has intensified its efforts to develop its international business and has consolidated resources to advance to the global market with a competitive offer for the thermal power industry.

In 2017, the development and the formation of new technological partnerships is planned (in particular, the expansion of mutually beneficial relationships with NEM Energy B.V. (the Netherlands) is planned with respect to waste-heat recovery units) as well as the creation of long-term business relationships with customers in strategic markets and the development of cooperation with key Russian general contractors that perform thermal power projects in foreign markets.

JSC AEM Technologies performed contracts for the delivery of column and reactor equipment for Orsk Refinery, JSC Gazpromneft - Moscow Refinery, and JSC Gazpromneft - Omsk Refinery. JSC

SverdNIlkhimmash continued the implementation of a contract for the design and the delivery of a vacuum-evaporator plants for the receipt of «Extra» grade table salt in Kaliningrad region.

SPECIAL STEELS



The business direction combines production and research assets that specialize both in the development of new construction materials and technologies and in the production of finished products for energy (wind, steam, hydro, nuclear), shipbuilding, metallurgy and general engineering.

In 2016, the key events were as follows:

- the development of production of large-capacity Hall anchors;
- the conclusion of the first contract for the delivery of equipment for nuclear icebreakers of the 22220 project;
- the renewal of cooperation with BHEL (India);
- business development with ArcelorMittal (South Africa): production and shipment of 1.7 thousand tons of rolling rolls and an increase in planned sales for 2017 to 2 thousand tons;
- the first test shipment of support rollers for new customers: CJ Steel (Thailand), Essar Steel (India), and Fabbrica Italiana Lamiera (Italy);
- the conclusion of first contracts for the delivery of support rolls for Thyssen Krupp (Germany), Sail-Bhilai (India), Jindal Stainless (India), Acciaieria Arvedi (Italy) and PJSC Novolipetsk MK;
- the conclusion of a contract with PJSC Uralkuz for the delivery of a unique solid hammer anvil.

The key tasks for 2017 include the fulfillment of obligations to the largest Russian and international companies: ArcelorMittal (Luxembourg), BHEL (India), ABB (Switzerland), PJSC VSMPO-Avisma Corporation and others; as well as attestation and receipt of the status of a supplier for General Electric (the USA), Alstom (France), Siemens AG (Germany), Ansaldo (Italy), Fincanteria (Italy), and PJSC Power Machines.

CASE



OF JSC ATOMENERGOMASH: HIGH STANDARDS OF COOPERATION

Within the framework of the Kazakh-Russian business forum, Atomenergomash and the National Company Kazakhstan Engineering signed an agreement on the development of bilateral cooperation. The companies intend to cooperate in the field of thermal power engineering and oil and gas industry. The Memorandum provides for the possibility of information exchange, joint preparation of tender and commercial proposals, as well as other forms of cooperation. The document is valid until the end of 2017 and can be extended by decision of the parties.



GAS AND PETROCHEMICAL INDUSTRY

In 2016, the Russian market of equipment for gas and oil industry facilities did not show a significant growth on the background of the sanctions imposed against the Russian Federation and the closing up of investment plans of the customers of the petrochemical complex. Therefore, the Company continues actively to consider opportunities for delivery of various ranges of its equipment under

the import substitution programs. In particular, JSC Afrikantov OKBM is preparing to develop a line of sealed pumps for the gas and petrochemical industry.

The key event of the reporting period was the conclusion of one of the Company's largest contracts for the delivery of an evaporation plant for salt-containing effluents for the petrochemical complex of PJSC SIBUR Holding.

SHIPBUILDING



One of the most dynamic business lines of the Division is shipbuilding. The strong positions of JSC Afrikantov OKBM, as well as the aggregate capacity of the Division's enterprises, will allow JSC Atomenergomash to become one of the leading suppliers of equipment for icebreaker and Navy fleets, including reactors, shell equipment, monitoring and control systems, castings and forgings and components for the marine nuclear reactor engineering sector in the future.

In this business line, JSC Atomenergomash considers the Russian market for large-capacity and high-tech ships as its target market, the volume of which determined by the "Strategy of Development of the Shipbuilding Industry of the Russian Federation up to 2030" and the relevant federal target programs that envisage the construction of over 100 vessels up to 2030.

In 2016, the Company significantly strengthened its presence in the market of equipment of the shipbuilding industry of the Russian Federation primarily due to the delivery of a range of non-power plant marine equipment supplied, including for the Russian Navy. The order book in this business line in 2016 amounted to approximately 42 billion rubles.

One of the key events within the framework of the expansion of competencies in the shipbuilding business line was the fabrication and the shipment of the new generation RITM-200 reactor plant.

In 2017, the strategic priorities for this business area for the implementation of import substitution programs will continue to be: development of a new type of equipment, expansion of the range of supplied equipment, and increase in the share of orders manufactured at the facilities of the Division's enterprises.

FLOATING NUCLEAR POWER PLANTS

In 2016, it was decided to appoint JSC Atomenergomash as an integrator for a new line of business - Floating Nuclear Power Plants (FNPP) (part of the Shipbuilding business line), which resulted in the formation of an FNPP project office.

In the reporting period, a market analysis, an evaluation of the development and promotion of the new product, a concept of optimization of the existing Akademik Lomonosov FNPP project,

preliminary economic assessments of the cost of construction and operation of the FNPP were conducted; and guidelines for the cost of electricity production throughout the life cycle of the power plant (LCOE) were obtained.

In 2017, a number of activities are scheduled for agreement from the technical and the commercial point of view of the product for the transition to an active phase of interaction with potential customers.

WATER DEMINERALIZATION, TREATMENT, AND PURIFICATION



In 2016, a new business line was created in the structure of JSC Atomenergomash, the purpose of which is the implementation of projects on water treatment, purification, and demineralization for the industries and for the utilities. One of the important tasks at this stage is structuring the business direction and involving existing industry competencies and specialists in it.

In connection with high energy drinking water production and wastewater treatment costs, the

practice of joint implementation of water and energy projects is common. In 2016, work was done to form the basic design of a demineralization complex integrated with nuclear power plants on the basis of the world's leading technology solutions.

In 2017, the development of engineering competencies, the development of new product solutions (a water treatment plant, a block demineralization plant) and creation of an order portfolio is scheduled.

CASE



OF JSC ATOMENERGOMASH: OUTPUT TO OPEN OSMOSIS

Atomenergomash starts developing a new business line directly related to ecology and clean water: the creation of a comprehensive offer for potential customers in the area of water and wastewater treatment and production of water suitable for the operation of energy and industrial facilities. One of the most important areas will be nuclear demineralization, which is especially important given the ever-growing deficit of drinking water in the world.

MINI-HYDRO-ELECTRIC POWER PLANTS



The new business line of the Division was opened due to the signing of the first commercial

contract for the delivery of a pilot plant for a 0.9 MW container mini-HPP for deployment in Georgia by Ganz EEM LLC (Hungary) in December 2016.

1.4. SUSTAINABLE DEVELOPMENT OF THE COMPANY

The Company recognizes that following the concept of sustainable development is one of the most important success factors in the medium and long-term perspective. The principles of sustainable development are deeply integrated into the Company's operations and are reflected in the mission of JSC Atomenergomash laid down in its corporate strategy.

The Company is oriented at the agenda for sustainable development of JSC Atomenergomash based on the results of the UN Conference on Sustainable Development "Rio +20", and a similar agenda of Rosatom State Corporation when initiating and implementing its projects. The sustainable development agenda of JSC Atomenergomash is given in the table below; and the results of its implementation in 2016 are disclosed in the relevant sections of the Report.

RIO +20	ROSATOM STATE CORPORATION	JSC ATOMENERGOMASH	RESULTS OF 2016
Health and population	Ensuring nuclear radiation safety and security of nuclear facilities	Ensuring industrial safety	LTIFR for the Division: 0.25
Disaster risk reduction			
Energy	Ensuring energy security	Executing orders to provide the country with electricity	Timely delivery of equipment under the concluded contracts is 100%.
Sustainable consumption	Minimizing the environmental impact	Consuming resources and energy in a responsible manner	Reduction of the volume of consumed energy by 9%
Poverty eradication	Providing positive economic and social impacts on a regional, national and international scale	Implementing charitable and social projects in the regions of presence	Charity expenses: 24 million rubles
Food security			
Human rights and equality			
Sustainable development financing		Making payments to the budgets of all levels	Paid to the budgets of all levels: 5.8 billion rubles
Promoting employment and social protection		Providing stable jobs for the population in the regions of presence	Social payments per employee: 19.2 thousand rubles.
Human development	Efficiency improvement the capital utilization efficiency	Staff capacity building	The number of employees in the personnel reserve is 168 people.
Education			
Technologies		Innovation and R&D	Research & development expenditures: 6.7 billion rubles.
Transparency	Ensuring public acceptance of development for nuclear energy	Company's communications and public reporting	Mentions in the media - Positive: 32% - Negative: 5% - Neutral: 63%

8 The risks associated with the sustainable development agenda are presented in Appendix 12 to the interactive version of the Report

2.1. CORPORATE GOVERNANCE SYSTEM

Within the scope of the strategy of JSC Atomenergomash, which is primarily focused on the development of a global competitive power-engineering holding, the formation of an effective system of corporate governance based on the requirements of the current legislation of the Russian Federation, recommendations of the Corporate Governance Code⁹, and the best world practices, is one of the priority directions of development, taking into account the industry-specific features of the Company.

2. CORPORATE GOVERNANCE

JSC ATOMENERGOMASH IS PRIMARILY FOCUSED ON THE DEVELOPMENT OF A GLOBAL COMPETITIVE POWER-ENGINEERING HOLDING

⁹ Certain provisions of the Corporate Governance Code are applied by the Company in practice by taking into account the specifics of the legal status of Rosatom State Corporation, which ensures the unity of management of organizations in the nuclear industry, as set forth in applicable laws and regulations of the Russian Federation.

GRI 102-16, i

The Company complies with the principles of corporate governance fixed in the Charter and other regulatory documents of the Company, including the principles related to the distribution of powers and responsibilities of corporate governance bodies, provision for the protection of shareholders' rights, the effectiveness and the reliability of the risk

management system and the internal control system, as well as the timeliness, the completeness, and the reliability of information disclosure. The main objectives of corporate governance of the Company are as follows: ensuring the preservation of funds provided by the shareholder and the efficient use thereof.

GRI 102-18

GOVERNING BODIES

The governing bodies of the Company under its Charter are:

- the General Shareholder Meeting;
- the Board of Directors;
- Chief Executive Officer.

The Company does not have an audit commission; internal control of business transaction is carried out in accordance with internal documents and local regulations of the Company.

GRI 102-10

STRUCTURE OF AUTHORIZED CAPITAL

In compliance with the Charter of JSC Atomenergomash, the authorized capital of the Company as of January 1, 2016 amounts to RUB 1,015,926 (one million and fifteen thousand and nine hundred and twenty-six rubles) and is divided into 1,015,926 (one million and fifteen thousand and nine hundred and twenty-six) ordinary registered shares with a par value of 1 ruble each. Each ordinary

share of the Company confers equal rights to the shareholder who owns it.

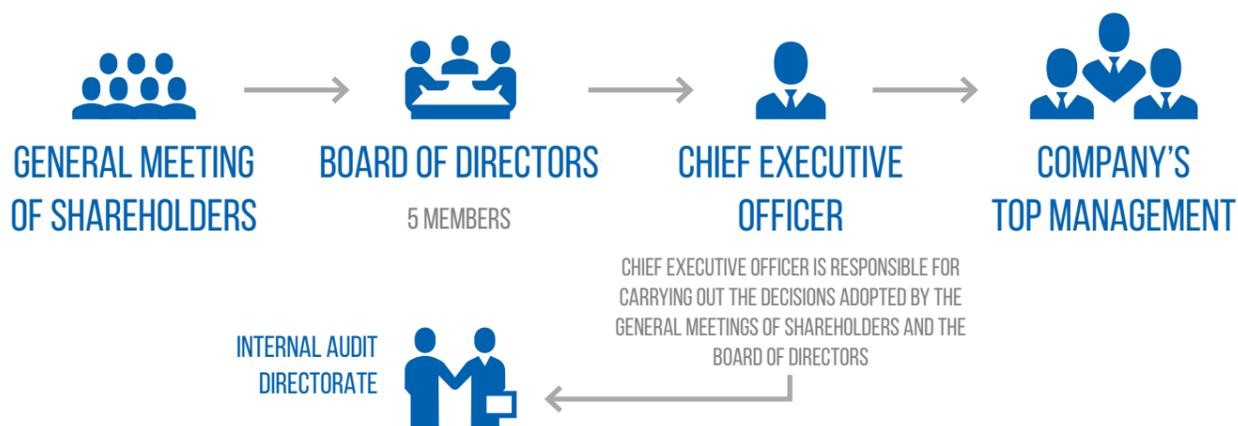
As of December 31, 2016, the Company placed 2,566,657 (two million and five hundred and sixty-six thousand and six hundred and fifty-seven) ordinary registered shares taking into account the additional issue in December.

GRI 201-4

As of December 31, 2016, the outstanding shares were distributed as follows:

№	SHAREHOLDER'S NAME	NUMBER OF SHARES, SHARES	SHARE OF ALL PLACED SHARES, EXPRESSED AS PERCENTAGE
1.	Nuclear Power Generation Complex Joint Stock Company	2,542,147	99.045061%
2.	AEM Leasing Joint Stock Company	24,050	0.937017%
3.	Rusatom Overseas Limited Liability Company	460	0.017922%
TOTAL		2,566,657 ordinary registered shares	100%

CORPORATE GOVERNANCE SCHEME OF JSC ATOMENERGOMASH



GRI 102-7

GENERAL MEETING OF SHAREHOLDERS

According to the Charter, the Company's highest governing body is the General Meeting of Shareholders. The competence of and the procedure for convening and holding the General Meeting of Shareholders are defined in the Company's Charter as well as in the Federal Law "On Joint Stock Companies."

In 2016, eight General Meetings of Shareholders were held (one annual and seven extraordinary meetings).

No dividends were paid in 2016 as no decisions to declare and to pay dividends after Q1, H1, Q3, and Y2016 were made by the General Meeting of Shareholders of the Company.

BOARD OF DIRECTORS

The Board carries out the strategic management of the Company's activities and effective control over the activities of its executive body.

The personal composition of the Board of Directors of JSC Atomenergomash did not change in 2016 (remaining at 5).

The Board of Directors was elected by the resolution of the Annual General Meeting of Shareholders held on June 30, 2016:

- 1) Ekaterina Viktorovna Lyakhova
- 2) Andrey Vladimirovich Nikipelov
- 3) Boris Georgiyevich Silin
- 4) Nikolay Segeyevich Drozdov
- 5) Vladislav Igorevich Korogodin

GRI 102-22, 102-23

The Company does not have independent members of the Board of Directors within the meaning defined in the Corporate Governance Code.

INFORMATION ABOUT THE MEMBERS OF THE BOARD OF DIRECTORS

CHAIRWOMAN OF THE BOARD OF DIRECTORS



Ekaterina Lyakhova

Date of birth: 07.06.1975
Has been in office since June 29, 2012 to present.
2011–present – Director of Investment Management and Operational Efficiency at Rosatom State Corporation, Director of Investment Management and Operational Efficiency at Rosatom State Corporation



Vladislav Korogodin

Date of birth: 25.10.1969
In office since June 30, 2015 to present.
2012–present – Director of Management of the Nuclear Fuel Life Cycle and Nuclear Power Plants at Rosatom State Corporation.



Boris Silin

Date of birth: 26.10.1954
In office since November 27, 2014 to present.
From 2012 – present – Adviser to the First Deputy Chief Executive Officer for Operations Management of Rosatom State Corporation.



Andrey Nikipelov

Date of birth: 07.03.1968
Has been in office since June 29, 2012 to present.
2012g–present – Head of the Machine Engineering Division at Rosatom State Corporation.
October 2012 – present – Member of the Management Board at Rosatom State Corporation.
April 2012 – present – Chief Executive Officer of JSC Atomenergomash.



Nikolay Drozdov

Date of birth: 23.06.1972
In office since October 4, 2013 to present.
November 2016 – present – First Deputy Chief Executive Officer for Back-End Commercialization of JSC Techsnabexport

10 Information on major transactions and related-party transactions is presented in Appendix 13 to the interactive Report.

GRI 102-33, 102-34, i

The competence of the Board of Directors is defined by the Company's Charter. Meetings of the Board of Directors are called as necessary upon the initiative of the Chairman or the Members of the Board of Directors, the Chief Executive Officer, or the auditor of the Company.

In 2016, 18 meetings of the Board of Directors were held to address 34 agenda items.

GRI 102-36, 102-18, i

In 2016, no decisions on the payment of remuneration and/or compensation of expenses to members of the JSC Atomenergomash Board of Directors were adopted, no remuneration was paid, and no compensation of expenses was provided. Except for the Chief Executive Officer of the Company, there are no persons in the Board of Directors who are employees, including part-time employees, of the Company during the reporting period.

Members of the Board of Directors do not own any shares of the Company.

CHIEF EXECUTIVE OFFICER

GRI 102-19

In accordance with the requirements of the Federal Law "On Joint Stock Companies" and the Company's Charter, the Chief Executive Officer is responsible for carrying out the decisions adopted by the General Meetings of Shareholders and the Board of Directors.

The Chief Executive Officer of the Company, Andrey Nikipelov, was elected by a decision of the Extraordinary General Meeting of Shareholders on April 16, 2012 (and owns no shares of the Company).

GRI 102-26, 103-3, i

KPIs set for the Chief Executive Officer of JSC Atomenergomash in 2016

INDICATOR	TARGET VALUE			ACTUAL VALUE
	MINIMUM	TARGET	MAXIMUM	
AFCF of the Division, billion rubles	4.05	4.5	5.4	11.8
Integral indicator of investment performance, %	80	100	108	108
Timely delivery of equipment under concluded contracts, %		100		100
Semi-fixed costs, billion rubles	23.85	22.7	16.95	19.98
Labor productivity, bln rubles/person	3.7	4.1	5.35	3.7
Book of foreign orders for 10 years, million USD	69	77	97	149
International revenue, mln. USD	85	128	154	121 ¹¹
Revenue from new products outside the contour and inside the contour on a competitive basis, million rubles.	24.6	25.9	32.4	27.7
The order portfolio of Rosatom State Corporation for ten years for new products, billion rubles	100.1	105.4	131.65	204.2
LTIFR, %		0.54		0.25
The absence of violations on the scale of INES Level 2 and above		No violations		No violations
Implementation of state assignments, %		100		100

¹¹ The indicator is calculated taking into account the correction factor for the adjusted open currency position, which is multiplied by the real amount of foreign revenue (US \$114.8 mln) to summarize KPIs.

¹² Characterizes the development and the commercial success of new products and business lines that are strategically important for Rosatom State Corporation

¹³ Rosatom State Corporation profile

Compliance with key indicators at the low level is due to the postponement of the deadlines for the performance and the short receipt of revenue under a number of nuclear and foreign projects for long-cycle equipment.

In 2016, the targets set by Rosatom State Corporation to the Division were fulfilled. In 2017, the KPI card of the Company's Chief Executive Officer will also include indicators «Reducing the through cost of manufacturing and delivering pilot equipment of the long production cycle of the Nuclear Steam Generating Plant to the customer,» «Inventory turnover,» and «Contribution to the consolidated EBITDA of Rosatom State Nuclear Energy Corporation.»

GRI 102-20, i

COMPANY'S TOP MANAGEMENT



Andrey Nikipelov
Chief Executive Officer
In office since 2012.



Sergey Filatov
Deputy Chief Executive Officer –
Director for Economics and Finance
In office since 2014



Vladimir Razin
First Deputy Chief Executive Officer,
Director of Operations
In office since 2012



Ksenia Sukhotina
First Deputy Chief Executive
Officer for Strategy and
Organizational Development
In office since 2010



Sergey Kuleshov
Deputy Chief Executive Officer –
Corporate Governance Director
In office since 2006



Alexander Rantsev
First Deputy Chief Executive
Officer for Nuclear Power
and New Businesses
In office since January 2016



Vladimir Smirnov
Director for Gas
and Petrochemical Industry
In office since 2015



Sergey Shatokhin
Director of Thermal Energy
In office since 2015



Andrey Buzinov
Director for shipbuilding
and Optimized Floating Power Units
In office since August 2016



Alexander Levenshtein
Internal Audit Director
In office since 2007.



Natalia Shirokovskikh
Chief Accountant
In office since 2012.

¹⁴ <http://www.rosatom.ru/about/protivodeystvie-korrupsii/>

2.2. ETHICS AND ANTI-CORRUPTION PRACTICES

GRI 419-1

The competence of the Security Department of JSC Atomenergomash and specialized subdivisions of its EMPs includes the following issues:

- protection of state secrets and information;
- protection of intellectual property;
- identifying and analyzing factors and conditions that contribute to the emergence of threats to economic security and assets; as well as preparation of and support for the relevant preventative events.

In 2016, the key KPI that regulates the activities of the Division in this area was «Implementation of a program to counteract corruption at enterprises in the corporate profile in accordance with the National Plan for Combating Corruption for 2016–2017» (reached the upper level). In the reporting period, 91 local anti-corruption regulations were put into effect.

During the reporting period, the facts of the loss of assets of enterprises included in the corporate profile of JSC Atomenergomash were not allowed (278 attempts were prevented). The value of assets, the reimbursement of which was initiated by Asset Protection Divisions, amounted to more than 600 million rubles. The aggregate economic effect in 2016 amounted to almost 2 billion rubles as a result of work in the following areas:

- Decrease in prepayments to counterparties with identified low financial indicators;
- Reduction of the value of the contract as a result of monitoring market prices and detecting price increases;
- Detection of overstatement of the work performed and compensation for damages by contractors;
- Collection of accounts receivable on a pre-trial basis.

In 2016, 47 «hot line» notifications that contained information about the signs of corruption and other offenses were checked, and 18 of them were confirmed; 8 employees were held disciplinarily liable, and labor contracts with 3 employees were terminated by mutual agreement.

In 2016, 13 employees of Asset Protection Divisions were trained in specialized training centers of Rosatom State Corporation.

GRI 102-17, i

In order to improve the corporate culture and to create an atmosphere of integrity and a zero tolerance to theft, an “Anti-Corruption” section

was set up on the Company’s official website at the following URL: <http://www.aem-group.ru/protivodejstvie-korruptcii/>.

GRI 205-3

16 materials were sent to law enforcement agencies, according to the results of which five criminal cases were initiated:

COMPANY	NUMBER OF CRIMINAL CASES
OJSC Venta	1
JSC TsKBM	1
PJSC ZIO-Podolsk	1
Petrozadovskmash branch of JSC AEM Technologies	2
TOTAL	5

Asset Protection Divisions constantly monitor the existence of a conflict of interest: in 2016, measures were taken against 11 received notifications from

employees about a possible conflict of interest in the course of distribution of operational bonuses.

CASE

OF JSC OKB GIDROPRESS: VERIFICATION OF COMPLIANCE WITH LEGAL REQUIREMENTS

In 2016, the Second Prosecutor’s Office for Supervising the Execution of Laws at Special Regions in the Moscow Region conducted a check of compliance of JSC OKB GIDROPRESS with the requirements of anti-corruption legislation. No violations of the requirements of the current legislation on the prevention and the settlement of the conflict of interests have been revealed, and there are no grounds for taking measures of the prosecutor’s response.

2.3. INTERNAL CONTROL AND AUDIT

GRI 103-3

The Internal Audit Directorate is subordinate to the Chief Executive Officer of the Company and implements its activities in compliance with international professional standards of internal audit is and guided by the principles of independence, impartiality.

The key areas of control measures are audit, control and audit activities, and compliance with the Unified Industry Procurement Standard.

To implement the activities, a Monitoring Plan for the half-year is formed, during the formation of which all employees of the Company have the right to put forward a proposal to conduct a control measure.

The effectiveness of activities in this area is assessed on the basis of the KPI «Absence of actual incidents or significant comments on the results of inspections by government bodies of the organization’s processes not previously identified by the internal auditor» (completed).

In the reporting year, the Internal Audit Directorate performed 14 audits (at 12 scheduled audits) of structural units and EMPs in order to identify risks and to evaluate the effectiveness of activities and business processes that are significant for JSC Atomenergomash. Based on the results of the audits, proposals and recommendations were prepared for the relevant departments of the Company.

2.4. RISK MANAGEMENT

JSC Atomenergomash has established a dedicated structural unit (the Risk Management Group), whose activities are aimed at creating a corporate risk management system and coordinating risk management and insurance activities.

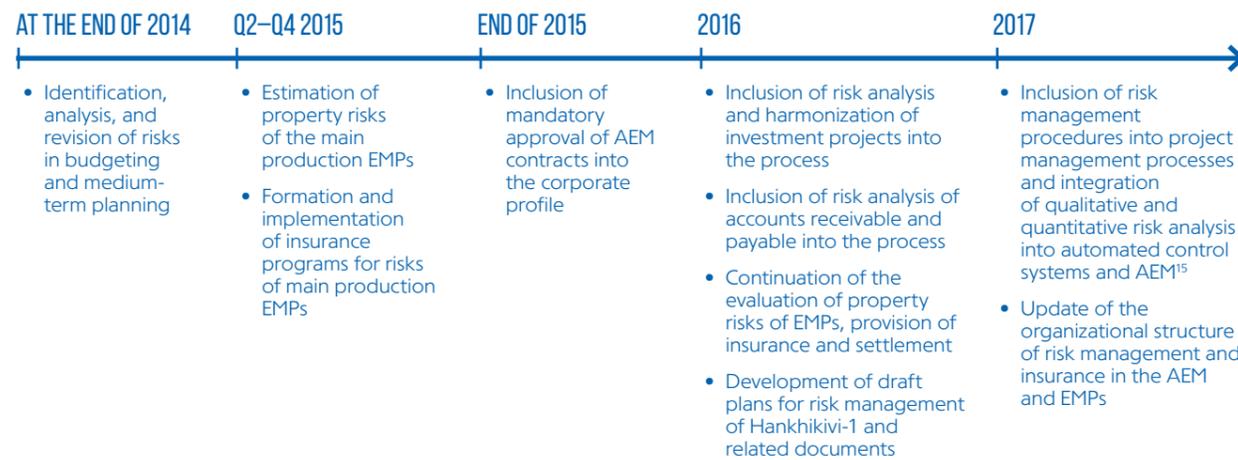
The tasks of the Group include regular audits of risks and ascertaining whether they are within the set risk limits, organizing interaction in making risk-related decisions between all participants in the risk management process from the CMP level to the level of Rosatom State Corporation. In the reporting year, the RMS was integrated into the strategic, investment, and financial planning processes as well as into the process of management of accounts receivable and payable.

In 2016, the list of key risk owners of the Company at the level of the Deputies Chief Executive Officer of the Company was updated. In addition, the Risk Management Group was included into the profile

of mandatory preliminary approval of agreements planned for conclusion by JSC Atomenergomash, which greatly enhanced risk monitoring and control at the stage of preparation of contracts.

Within the scope of unification of risk management and insurance processes, JSC Atomenergomash started an analysis of property risks of the basic manufacture of EMPs.

DEVELOPMENT OF RISK MANAGEMENT FUNCTIONS IN JSC ATOMENERGOMASH



Operation within the risk appetite boundaries established by the order of Rosatom State Corporation in 2016 as a maximum negative deviation of the adjusted free cash flow of JSC Atomenergomash from the planned value of 5%

has been set as a key performance indicator in the risk management area. In 2016, a positive deviation of 163.11% was registered (the planned value was exceeded).

CASE

OF JSC ATOMENERGOMASH: CURRENCY RISK MANAGEMENT

During Q1 2016, the JSC Atomenergomash Currency Risk Management Strategy and the Methodological Guidelines for the Management of Foreign Currency Risks of JSC Atomenergomash were developed. As a result of their implementation, an economic effect of more than 1 billion rubles was achieved due to the reduction in currency risks.

JSC Atomenergomash divides all its risks into critical, high, and low depending on the likelihood

of their occurrence and the materiality of their consequences¹⁶.

PRisk management results for 2016

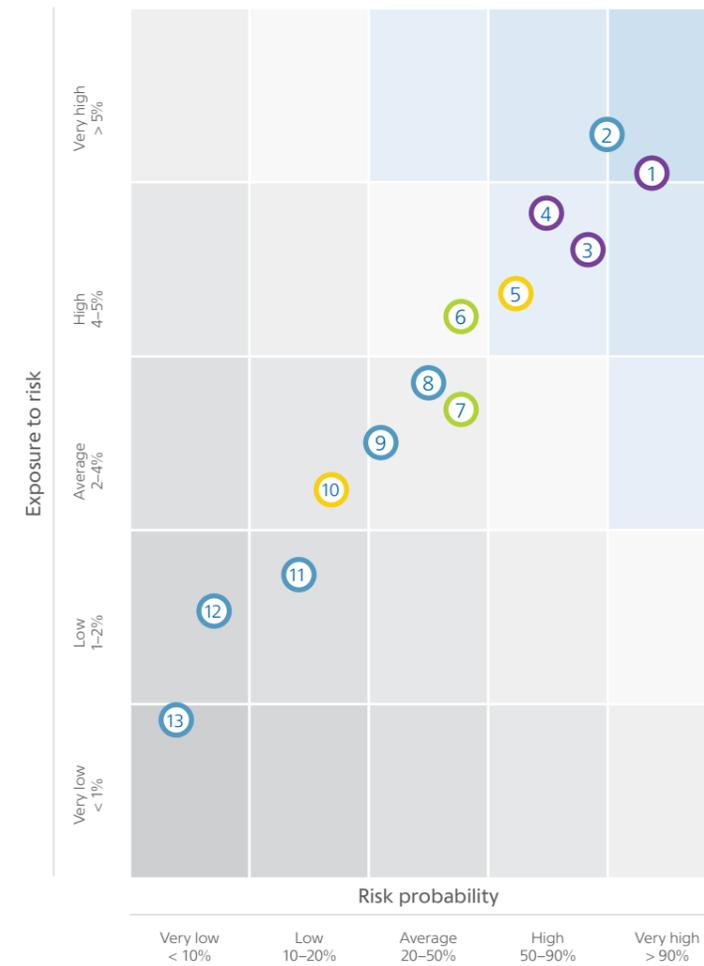
OCCURRED KEY RISKS (TYPE OF KEY RISK)	IMPLEMENTED RISK MANAGEMENT ACTIVITIES	EVALUATION OF THE IMPACT OF MEASURES AIMED AT REDUCING RISKS (IMPACT ON THE AFCE, BILLION RUBLES)
Disruption or postponement of the sale of equipment (operational risks)	Changing the start-up dates for production, accounting for the sale of products of the previous year, the introduction of automated management systems for AEM, the implementation of projects for the use of RPS in enterprises.	+2,0
Foreign currency risks (macroeconomic risks)	The control of purchases in currency or in rubles at the exchange rate of the foreign currency; the use of mirror conditions in income and expenditure contracts.	+1,1
Risks related to the sale of non-core assets (counterparty risks)	Assignment of sale prices of assets to market values in accordance with existing procedures; implementation of pre-sale preparation of assets.	+0,6
Inflationary and interest risks (macroeconomic risks)	Savings as a result of procurement procedures, a change in the amount of overhead costs, savings in terms of consumption of raw materials.	+0,1

¹⁵ Automated project management system of JSC Atomenergomash

¹⁶ For the most significant risks, risk management measures are listed (for more information about the measures, please refer to Appendix 11 to the interactive Report).

KEY RISK MAP

RISK MAP

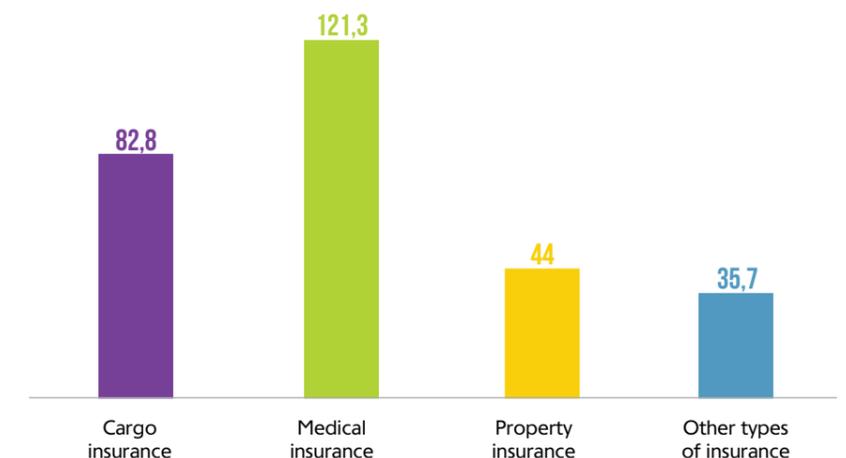


A LIST OF KEY RISKS

- 1 Macroeconomic risks (adverse change in exchange rates, interest rates, and inflation rates)
- 2 Operational risks (missed delivery deadlines, postponement of sales)
- 3 Counterparties risks (failure to conclude agreements, rejection of proposed transactions)
- 4 Market risks (reduced sale volumes; loss of markets)
- 5 Foreign policy risks (freezing of assets abroad, suspension or termination of joint projects)
- 6 Financial risks (risk of reduction of financial stability)
- 7 Investment risks (reduction in funding sources; cancellation or postponing of investment decisions)
- 8 Legal risks (adoption of judgments that are unfavorable for the Company)
- 9 Technological risks (non-competitive existing products and technologies)
- 10 Regulatory risks (inefficiency of legislation, additional regulatory requirements for the implementation of foreign projects)
- 11 Personnel risks (deficit of workers with the necessary skills)
- 12 Reputation risks (deterioration of public relations to the Company, atomic technologies as a whole)
- 13 Security risks (physical damage to the assets of the Company, risks of theft and fraud)

- Market risks
- Political and regulatory risks
- Financial risks
- Operational risks

Insurance expenses in the reporting year, by type (million rubles)



DELIVERY OF THE COLUMN FOR ATMOSPHERIC DISTILLATION FOR THE MOSCOW REFINERY
PETROZAVODSKMASH – BRANCH OF JSC AEM-TECHNOLOGIES

3.1. ECONOMIC PERFORMANCE AND FINANCIAL POSITION

JSC Atomenergomash, which is a leader of the mechanical engineering industry of Russia and implements plans to expand its global presence in the target markets, is guided by the level of world leaders in the field of financial and economic management.

Responsibility for the financial result is laid down in the KPIs of the Chief Executive Officer and Deputies, who have a fixed team performance indicator – «Adjusted free cash flow» (in 2016, it was executed at the top level and amounted to 11.8 billion rubles).

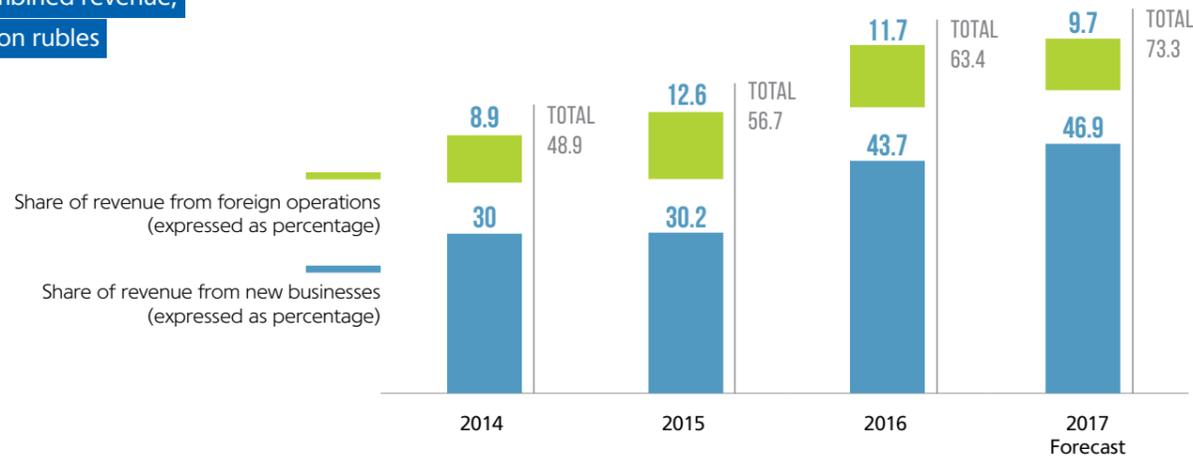
In 2016, the revenue amounted to 63.4 billion rubles (almost 12% higher than the previous year) while the EBITDA was 6.7 billion rubles (2.2 times the value of the previous year).

In the reporting year, the maximum figures for gas and petrochemicals, heat, and shipbuilding in four years were achieved.

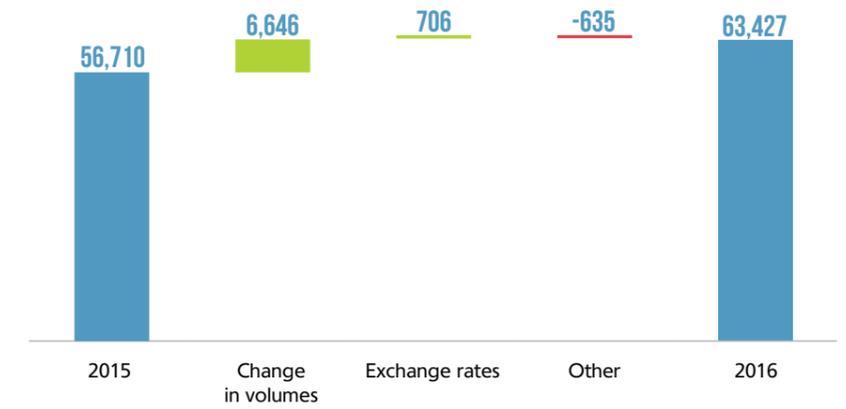
3. FINANCIAL AND ECONOMIC ACTIVITIES

JSC ATOMENERGOMASH IS GUIDED BY THE LEVEL
OF WORLD LEADERS IN THE FIELD OF FINANCIAL
AND ECONOMIC MANAGEMENT

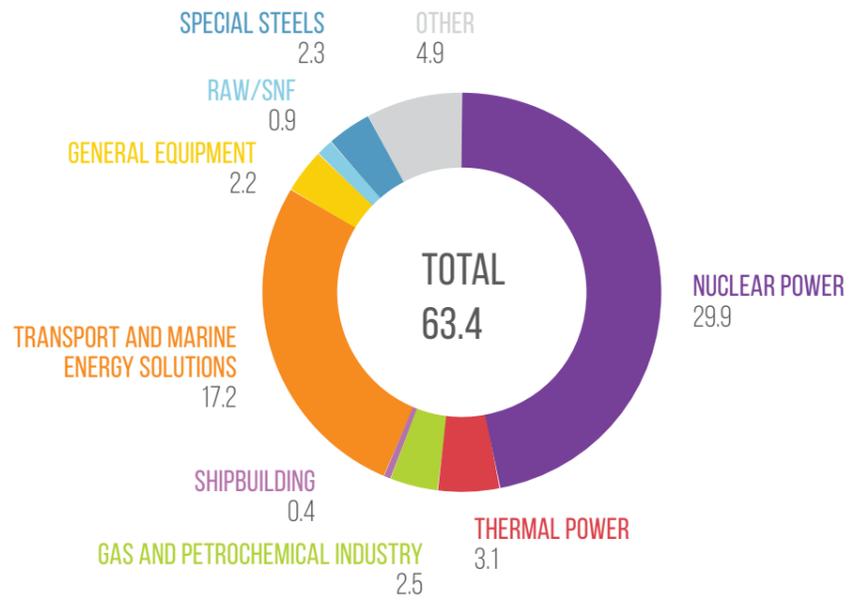
Combined revenue, billion rubles



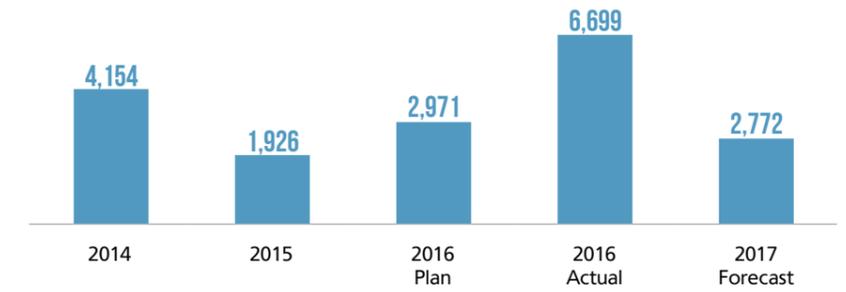
Factor analysis of the change in combined revenue, billion rubles



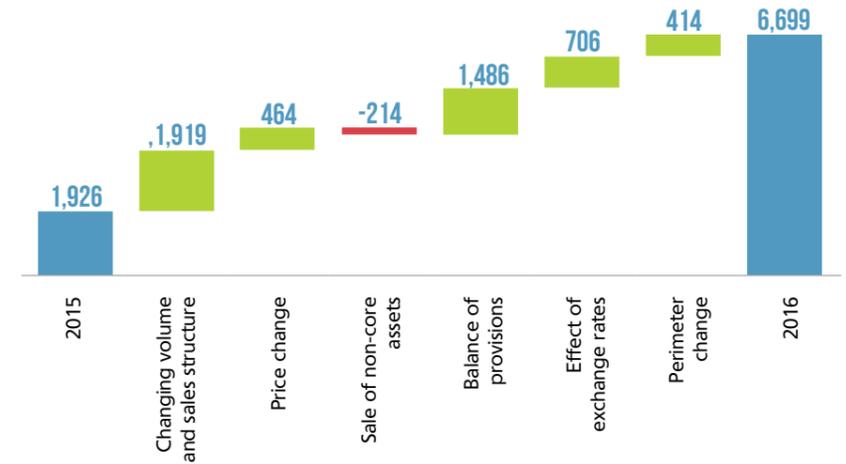
Combined revenue by operating sector, billion rubles



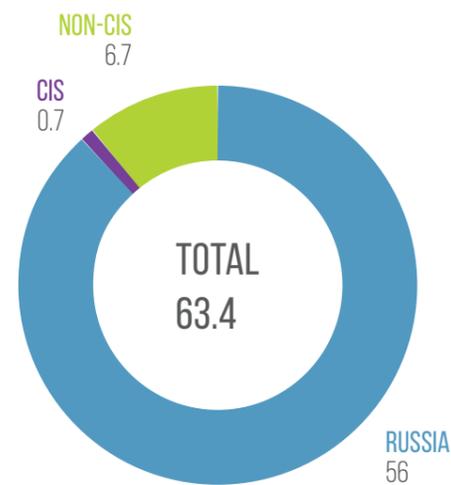
EBITDA, billion rubles



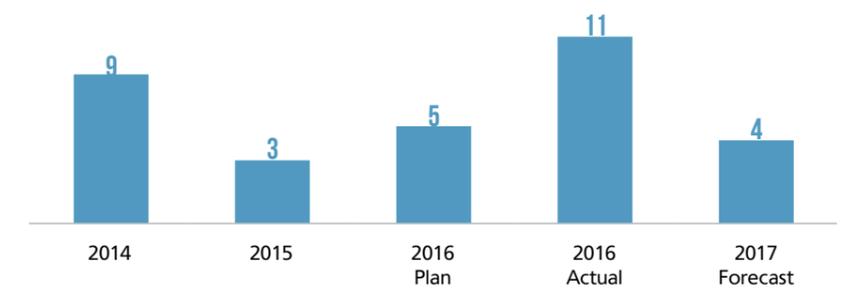
Factor analysis of the change in EBITDA, billion rubles



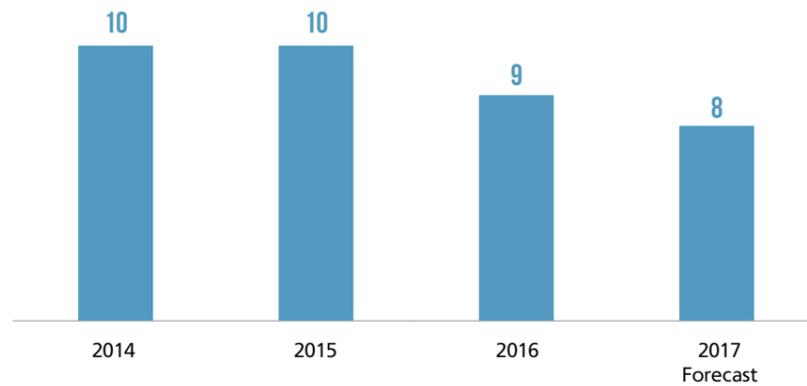
Combined revenue by geographical area/country, thousand rubles



EBITDA margin, %



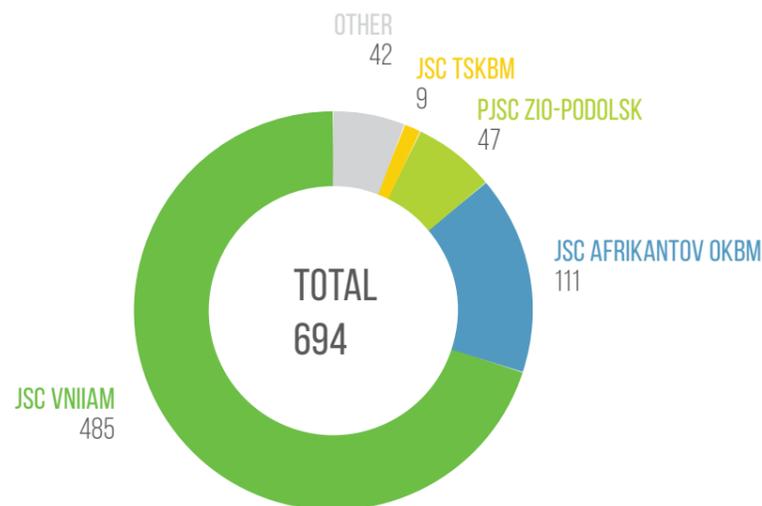
Share of management expenses in revenue, %



JSC Atomenergomash has been on the leading positions among the nuclear industry organizations in terms of revenues from sales of non-core assets for a number of years and continues to work actively in this direction. Thus, the Division performed the assigned objectives in the area of sale of non-core assets in

2016. The cash flow from the restructuring amounted to about 0.7 billion rubles. The largest contribution to achieving these goals was made by JSC VNIIAM, JSC Afrikantov OKBM, and PJSC ZiO-Podolsk.

Income from the restructuring of non-core assets, million rubles¹⁷

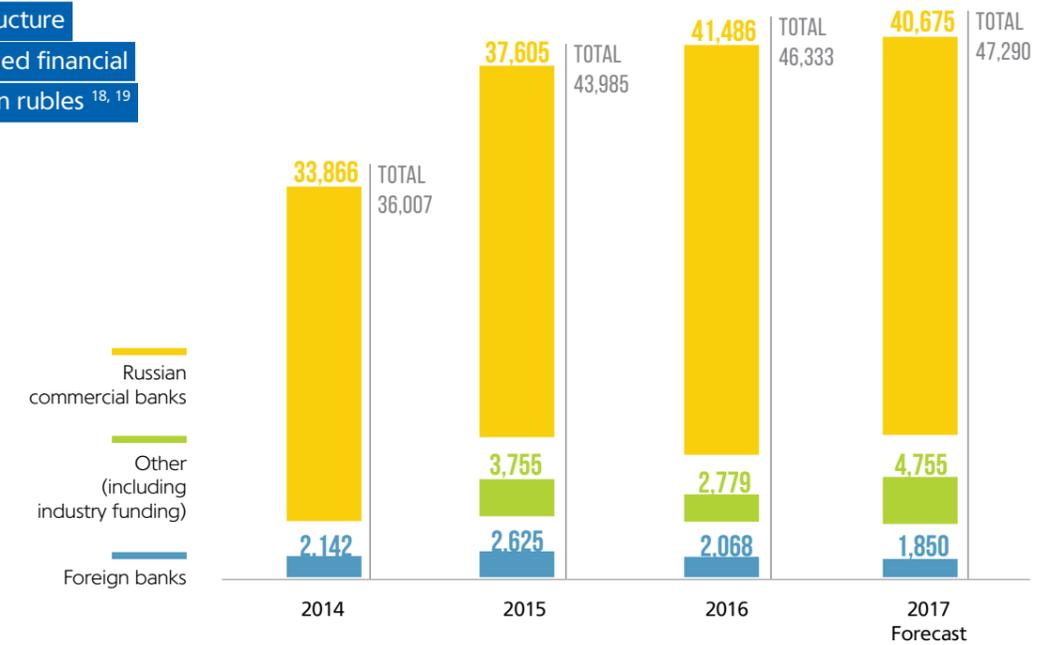


The Company's net debt and debt to equity ratio increased due to an increase in borrowed funds. However, the ratio of short-term receivables to short-term payables remained close to the standard, which

– coupled with the level of current liquidity – attests to the Company's solvency in the short term.

¹⁷ The data presented in the table includes not only funds received for the assets sold but also advances, the income under which will be recognized in 2017

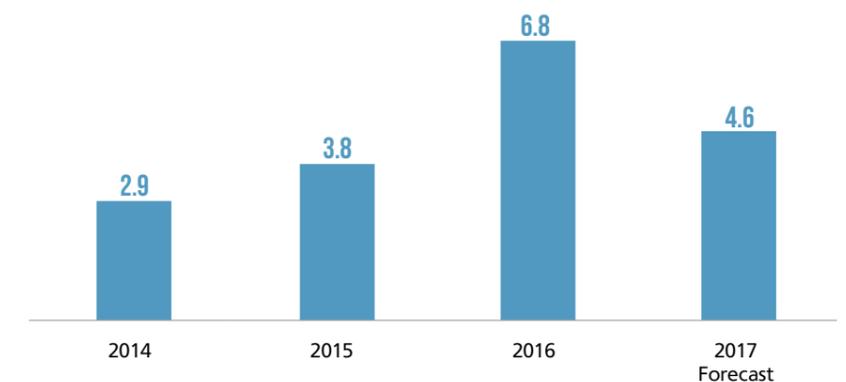
Loan portfolio structure (based on combined financial statements), billion rubles^{18, 19}



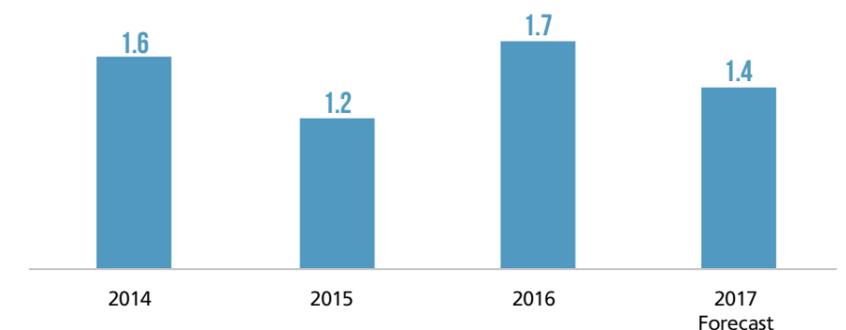
In 2016, the growth of the current liquidity ratio is due to the build-up of current assets while reducing short-term liabilities. In turn, the decline in the debt-

to-equity ratio in 2016 is due to the growth of the obligations of the Division and an increase of its own capital by almost 50% as compared to 2015.

Debt to equity ratio (based on combined financial statements)



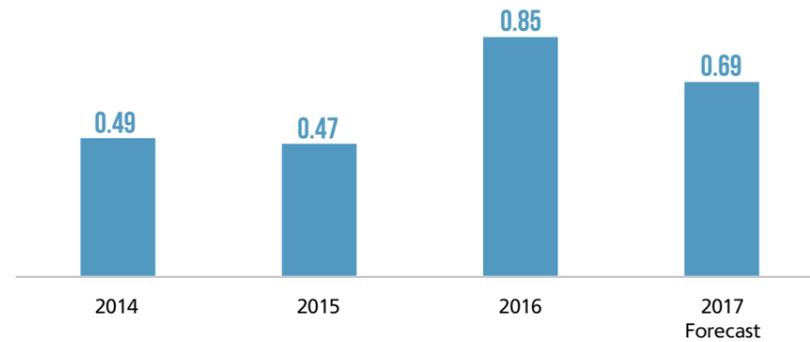
Current ratio (based on combined financial statements)



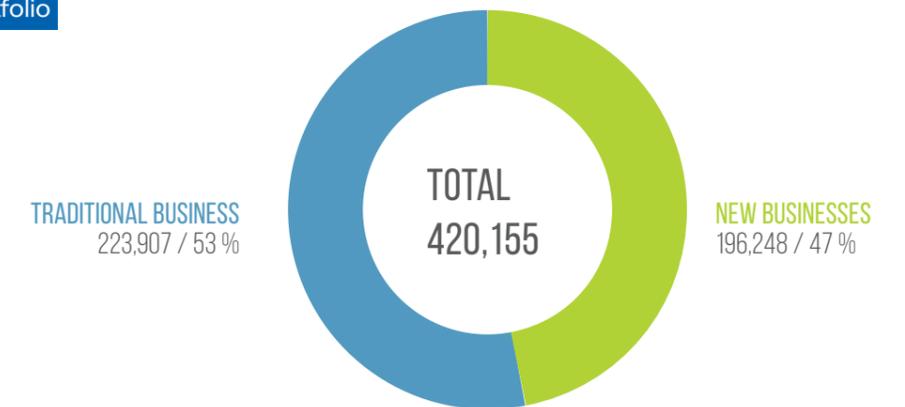
¹⁸ The structure of the debt / loan portfolio is reflected in the perimeter of the budgetary consolidation of the Machine Engineering Division at the balance sheet date

¹⁹ The size of the loan portfolio is presented without taking into account the available liquidity of the Division as of the reporting date and excludes advances on international contracts

Receivables to payables ratio
(based on combined financial statements)



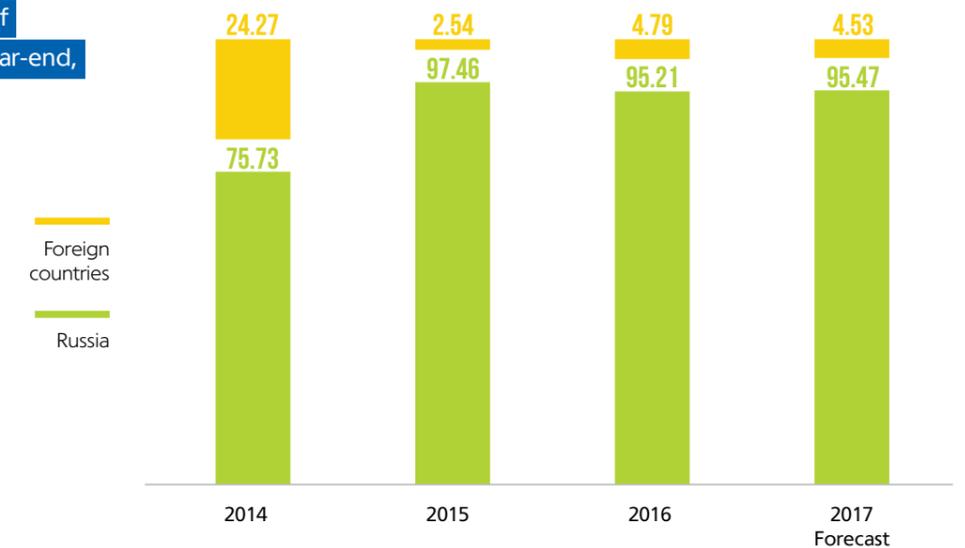
Structure of the order portfolio
by business type



GRI 201-4
State aid in 2016,
million rubles



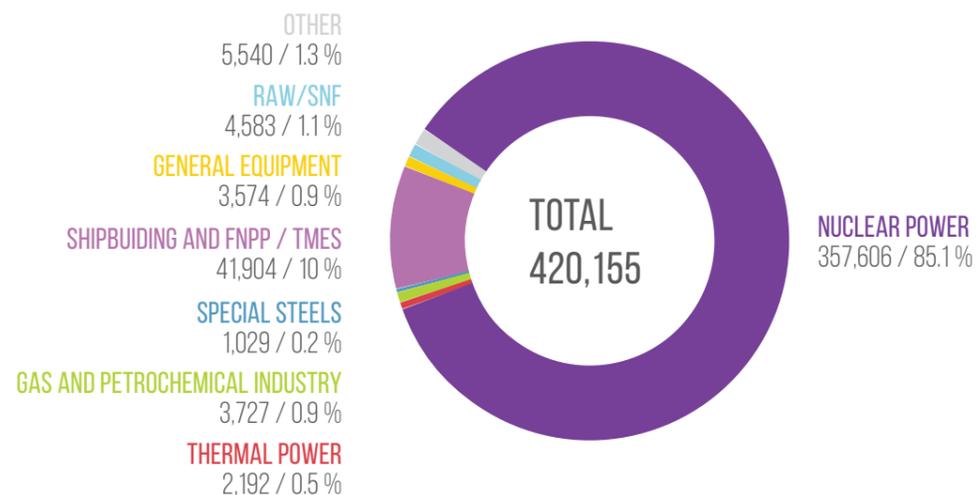
Geographical structure of
the order book at the year-end,
%



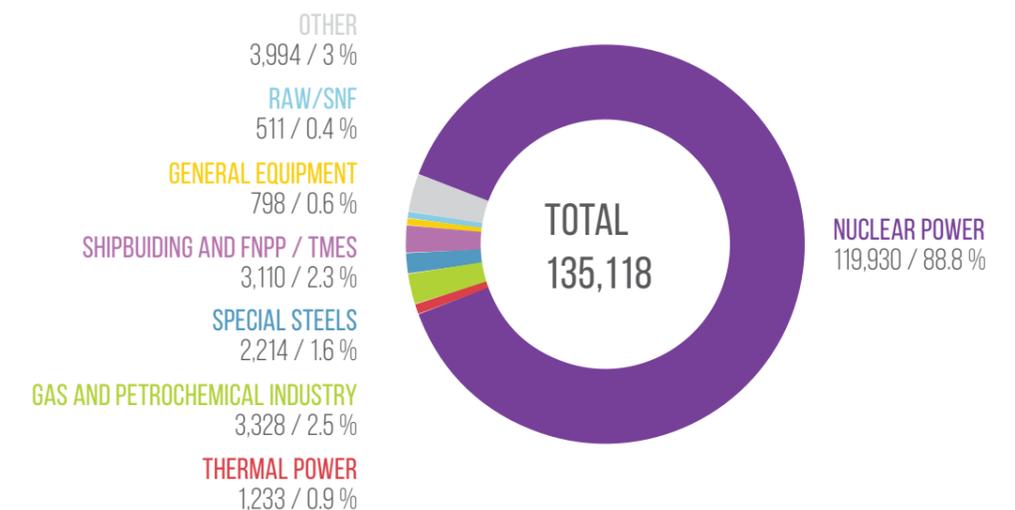
3.2. COMMERCIAL ACTIVITIES

Commercial operations of the Company are aimed at increasing the portfolio of orders in the nuclear industry and in related industries.

Sectoral structure of the order book at the year-end,
million rubles



Structure of contracts
concluded in the reporting
year by operating segment



3.3. INVESTMENT ACTIVITIES

The aim of the investment program of the Division is the execution of contracts for the delivery of equipment within the framework of the implementation of the Road Map for the construction of nuclear power plants in Russia and abroad (key

enterprises: JSC AEM Technologies, JSC TsKBM, JSC OKB GIDROPRESS, JSC Afrikantov OKBM).

These projects are aimed at implementing the strategic objectives of Rosatom State Corporation:

MAJOR PROJECTS JSC ATOMENERGOMASH	PROJECT BUDGET (FOR IIR)	PERIOD	COMPLIANCE WITH THE STRATEGIC OBJECTIVES OF ROSATOM STATE CORPORATION
Replenishing and maintaining the production capacity of PJSC ZiO-Podolsk.	516.57 million rubles	2011-2017	Increasing the share of the Company in international markets;
Increasing the capacity of PJSC ZiO-Podolsk to support the targets for general equipment production.	1,182.31 million rubles	2009-2018	Development of new products for the Russian and international markets Reduction of production costs and timing of processes.
Setting up a production complex for manufacturing of heavy equipment for nuclear power plant reactors at a welding production facility.	2,143.54 million rubles	2011-2016	Increasing the share of the Company in international markets
Technical revamping and modernization of the production complex of JSC TsKBM.	597.63 mln. rubles	2011-2016	
Increasing the capacity of PJSC ZiO-Podolsk to enable non-nuclear equipment production.	190.29 mln. rubles	2009-2016	Development of new products for the Russian and international markets
Establishing high-tech production of stamp-welded gate and wedge gate valves for nuclear, thermal power, oil and gas industry enterprises using nanostructured protective coatings.	347.41 million rubles	2013-2019	
Assimilating production of products for nuclear power plants and the gas and petrochemical industry.	873.48 million rubles	2013-2019	Reduction of production costs and timing of processes

In order to plan investment activities in 2016, the SIRIUS industry-wide system of management and control of investment activity was introduced at the enterprises of the Division.

In order to improve the quality of investment planning and to achieve key parameters of the investment phase of the projects, JSC Atomenergomash uses the following KPIs in this area:

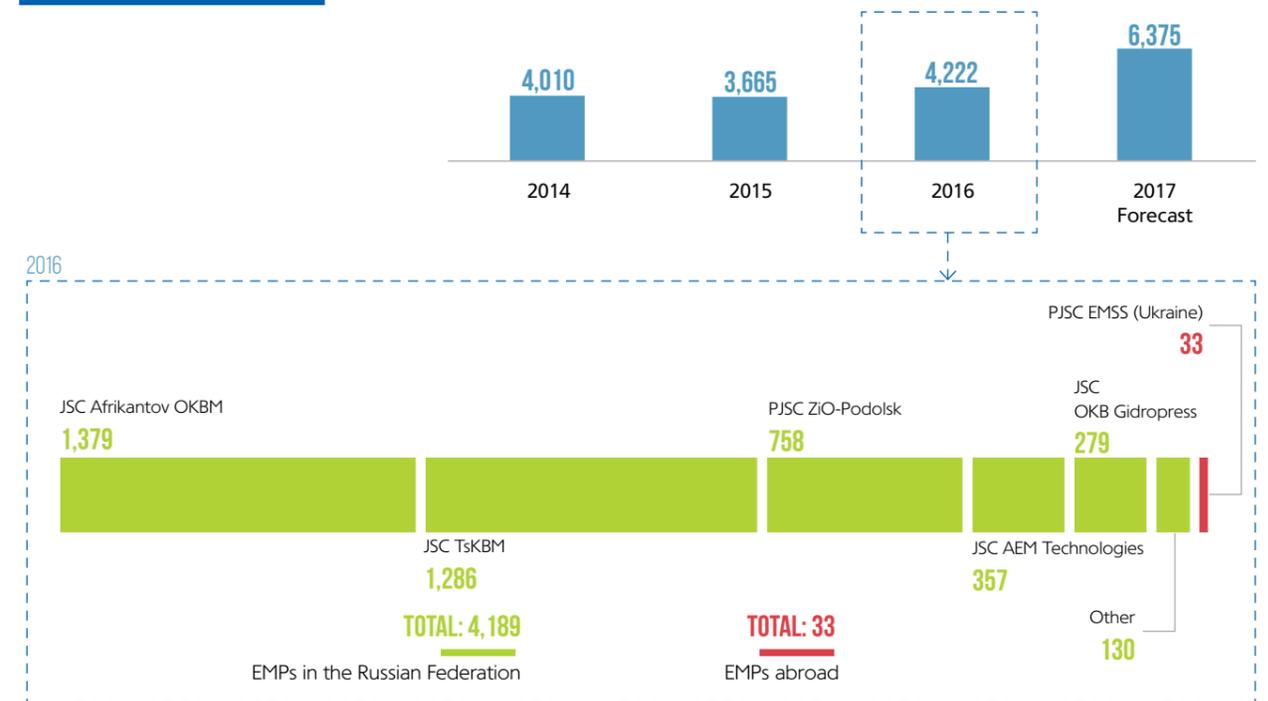
- 1) An integral indicator of investment performance that includes:
 - planned/forecast return on the portfolio;
 - compliance with key milestone dates;
 - execution of revenue milestones;

- 2) an integrated indicator of the quality of the preparation of materials for the project;
- 3) reduction of the share of costly projects.

When making investment decisions, JSC Atomenergomash is guided by the gate principle of investment planning, the essence of which is to allocate financing for investment projects in stages. Thus, the implementation of projects is monitored, and changes in external and internal factors are taken into account.

In the reporting year, the volume of financing of the investment program of the Company amounted to 4.2 billion rubles

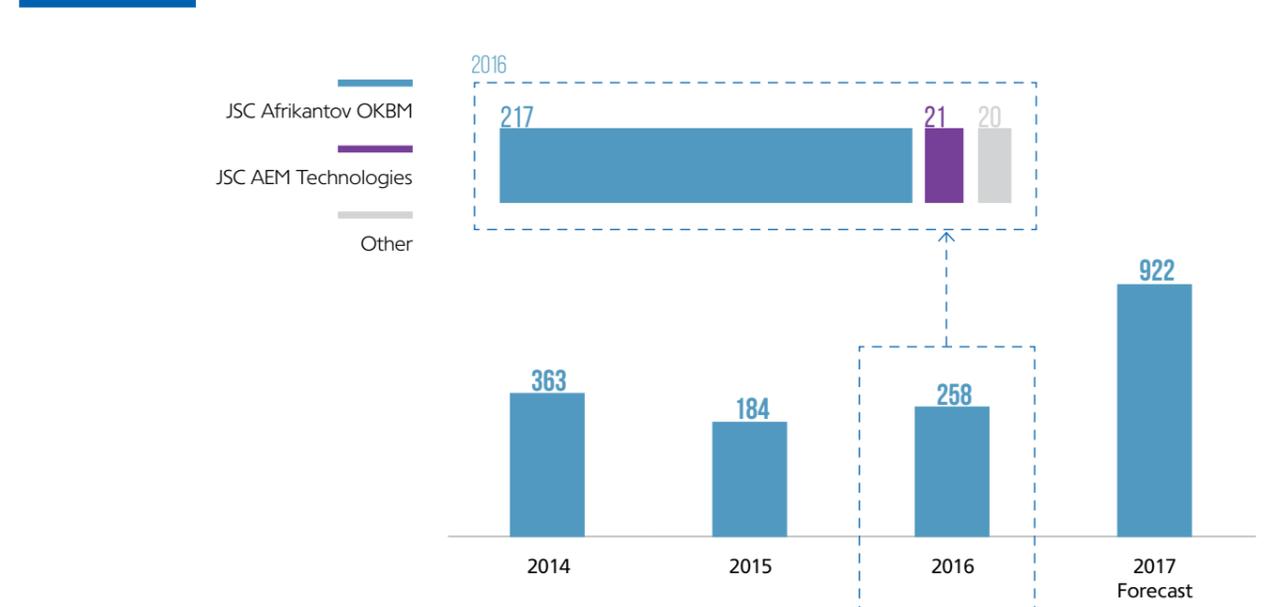
Volume of investments by EMP and country, million rubles



Key investment projects are implemented at the following enterprises: JSC OKB Gidropress, JSC NPO TsNIITMASH, JSC Afrikantov OKBM, and JSC SNIIP. At the production sites of JSC AEM Technologies and

JSC TsKBM, a part of investment projects includes work on the revamping of existing products and the creation of new products containing R&D costs.

Attracted R&D investments (million rubles)



THE KEY STAGE OF MANUFACTURING OF MCPU
JSC TSKBM

PRODUCTION ACTIVITIES

4.1. RESULTS OF PRODUCTION ACTIVITIES

Key indicators of efficiency in this area are the timely delivery of equipment under the concluded contracts and the implementation of the investment program of JSC Rosenergoatom Concern in terms of supplies from JSC Atomenergomash: in 2016, the performance was 100% and 121%, respectively.

4. PRODUCTION ACTIVITIES

KEY INDICATORS OF THE DIVISION'S EFFICIENCY ARE THE TIMELY DELIVERY OF EQUIPMENT AND THE IMPLEMENTATION OF THE INVESTMENT PROGRAM



NUCLEAR POWER

- products shipped to 20 nuclear power plants, including 9 foreign nuclear power plants Beloyarsk Nuclear Power Plant (power units 3, 4), Kola Nuclear Power Plant, Rostov Nuclear Power Plant (power units 3, 4), Kalinin Nuclear Power Plant, Smolensk Nuclear Power Plant, Balakovo Nuclear Power Plant, Novovoronezh Nuclear Power Plant, Novovoronezh Nuclear Power Plant-2, Kursk Nuclear Power Plant, Leningrad Nuclear Power Plant, Leningrad Nuclear Power Plant-2, Belarusian Nuclear Power Plant, Armenian Nuclear Power Plant, Bohunice Nuclear Power Plant, Mohovce Nuclear Power Plant, Kozloduy Nuclear Power Plant, Tianwan Nuclear Power Plant (power units 3, 4), Temelin Nuclear Power Plant (power units 1, 2), Paks Nuclear Power Plant.



THERMAL POWER

- Delivery of products to the production sites of Verkhnetagilskaya GRES, Berezovskaya GRES, Zhambylskaya GRES, Toparskaya GRES, Arkhangelskaya CHPP, Yaroslavl TPP, Pregol TPP, Primorskaya TPP, etc.



GAS AND PETROCHEMICAL INDUSTRY

- performance of contracts for the delivery of column and reactor equipment for Orsk Refinery, JSC Gazpromneft - Moscow Refinery, and JSC Gazpromneft - Omsk Refinery;
- implementation of a contract for the design and the delivery of vacuum-evaporator plants for the receipt of «Extra» grade table salt in Kaliningrad region.



SPECIAL STEELS

- Shipments of products to ArcelorMittal plants (Germany, Luxembourg, France, Romania, Belgium, Poland, Spain), General Electric International Inc. (USA), BHEL (India), Fabbrica Italiana Lamiera (Italy), Alstom Renewable (Poland), Iron Acciai Speciali s.r.l. (Italy), Iron Acciai Speciali (India), Bhushan Power (India), ABB (Estonia, Poland, Finland), AH Industries (Denmark), Aperam Stainless Belgium (Belgium), ThyssenKrupp Rothe Erde (Germany), and other leading European companies.



SHIPBUILDING AND FNPP

- Delivery of equipment for enterprises of the shipbuilding industry of the Russian Federation;
- Mastering, manufacturing, and shipping of the new-generation RITM-200 reactor for the LK-60 nuclear-powered icebreaker of the 22220 project.

CASE



OF JSC ATOMENERGOMASH: RITM-200 SHIPMENT

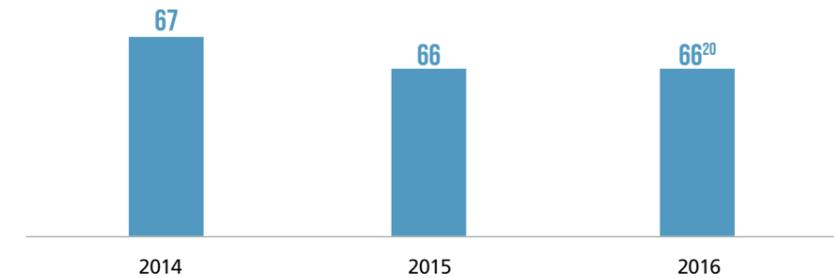
JSC Atomenergomash completed the manufacture of the RITM-200 reactor for the most powerful icebreaker in the world, the Arctica, which was floated out in St. Petersburg on June 16. On May 26, the first reactor of the power plant was sent from the production site of ZiO-Podolsk to the Baltic plant; and the second reactor was shipped exactly one month later (on June 26).

Several companies of the Division participating in the project implementation included JSC Afrikantov OKBM as a designer and complete supplier, PJSC ZiO-Podolsk as a manufacturer of hull equipment, and PJSC EMSS and JSC NPO TsNIITMASH.

The range of equipment produced by the enterprises of the Division is constantly expanding. In 2016, more than 66% of the products of the Division were manufactured at the own capacities

of the Division's enterprises; and 100% of the products were manufactured at the capacities of PJSC Energomashspetsstal and JSC OKB GIDROPRESS.

Share of products manufactured at own facilities, %



4.2. QUALITY AND INDUSTRIAL SAFETY

Security is one of the key values of Rosatom State Corporation.

GRI 416-1

The growing safety requirements for the nuclear facilities under construction and in operation impose special obligations on all enterprises of the Division

regarding product quality, where safety assessment becomes an integral element in the manufacturing of all kinds of products.

In this regard, the EMPs developed and certified quality management system (QMS) in accordance with the requirements of ISO 9001.

Certified QMS of EMPs

NAME OF THE ENTITY	NAME OF CERTIFICATION SYSTEM AND CERTIFICATE'S VALIDITY PERIOD
ARAKO spol. s.r.o.	TÜV SÜD, until September 14, 2018
GANZ EEM LLC	TÜV SÜD, until September 14, 2018
JSC Atomenergomash	IQNet (the Russian Register of St. Petersburg), until December 28, 2019
JSC OKB Hidropress	BUREAU VERITAS Certification, until October 23, 2017
JSC Afrikantov OKBM	TÜV Thüringen, until September 14, 2018
JSC NPO TsNIITMASH	BUREAU VERITAS Certification, until March 11, 2017
JSC ATM	AFNOR Certification, until September 14, 2018
JSC AEM Technologies	IQNet (the Russian Register of St. Petersburg), until September 15, 2018
OJSC Venta	GOST R VCS, until December 24, 2017
JSC VNIAM	EvroRestr VCS, until July 17, 2018
PJSC ZiO-Podolsk	Lloyd's Register Quality Assurance, until September 14, 2018
JSC SverdNIKhimmash	Management System Register VCS, until September 1, 2018
JSC SNIIP	TÜV CERT, until September 15, 2018
JSC TsKBM	IQNet (LLC Test, St. Petersburg), until June 30, 2017
LLC AAEM	IQNet (the Russian Register of St. Petersburg), until September 14, 2018
PJSC ENERGO MASH SPETSSTAL	TÜV Thüringen, until September 14, 2018

CASE



OF JSC SNIIP: INTERNATIONAL RECOGNITION

SNIIP received the certificate of conformity of its management system to the requirements of ISO 9001:2008 issued by TÜV Thüringen, the founder of certification of quality management systems, for the first time. By successfully passing the certification, the company strengthened its position in the international market and was able to enter the markets of countries requiring this certificate of the supplier.

²⁰ In connection with the inclusion of Ganz EEM in the Division, the indicator remained at the level of 2015

Activities and results of 2016 in the field of quality of JSC Atomenergomash:

- The Quality Policy and the QMS Standard for conducting audits were updated;
- performance of internal and external audits of suppliers (completion: 100%);
- The external audits of JSC Atomenergomash, which did not reveal any inconsistencies, were made by:
 - of the Finnish nuclear consortium Fennovoima Oy and supervisory authority (STUK) conducted an audit at JSC Atomenergomash in January and September 2016;
 - RAOS Project Oy in December 2016;
 - Self-regulating organizations of the nuclear industry SRO NP «SOYUZATOMPROEKT» and SRO NP «SOYUZATOMSTROY» in June 2016 (desk audits);
 - The certification body of LLC Russian Register - Baltic Inspection in early 2016 (according to the results of the recertification audit, JSC Atomenergomash received a certificate of compliance with QMS requirements ISO 9001: 2015).

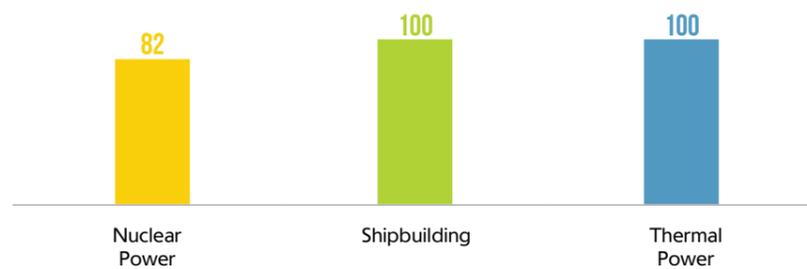
In 2016, the following activities were implemented to introduce a safety culture:

- specialists of the Quality Department of JSC Atomenergomash were trained in the Non-

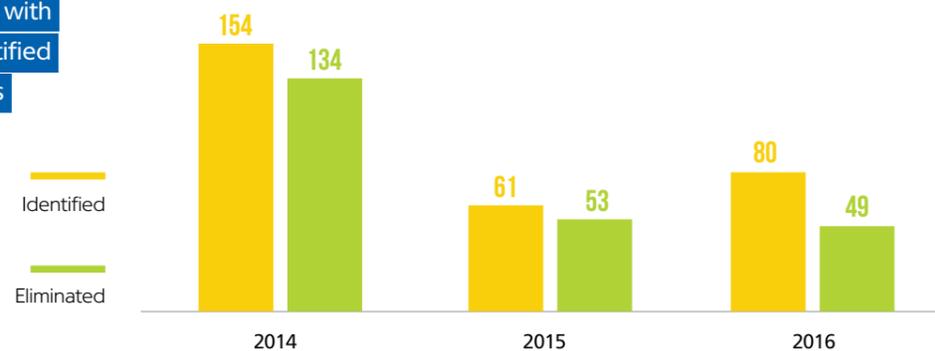
Governmental Educational Institution «TsIPK Rosatom» on issues related to the management of safety culture;

- the Safety Culture Development Plan, the Safety Culture Policy, the safety culture standard ST KSS AEM 0033.01.004-2016 «Providing a Safety Culture in JSC Atomenergomash were approved. Key Provisions»;
- a pilot self-assessment of the safety culture was carried out in the form of a survey of personnel of JSC Atomenergomash, which resulted in the development of a corrective action plan;
- an internal audit of the safety culture was carried out (within the framework of the QMS audit);
- in the framework of complex external audits, audits of the safety culture on the part of the customer (Fennovoima Oy (Finland)) were conducted with the involvement of the Technical Research Center (Finland), which did not reveal any inconsistencies;
- in the framework of complex audits of management systems, audits of the safety culture of divisional (PJSC ZIO-Podolsk, JSC Afrikantov OKBM, JSC SNIIP, PJSC EMSS, and the Petrozavodskmash branch of JSC AEM Technologies) and external suppliers (FSUE RFNC-VNIIEF, JSC Tyazhmash, and JSC NovEnergoProm) were performed.

Percentage of products of the main business lines that have passed the consumer's input control at the first presentation²¹ (%)



GRI 416-2 Cases of non-compliance with safety requirements identified during the external audits



In 2016, the Division's enterprises received forty-six complaints, which were eliminated for all but one,

which was rejected by the manufacturer (JSC OKB GIDROPRESS).

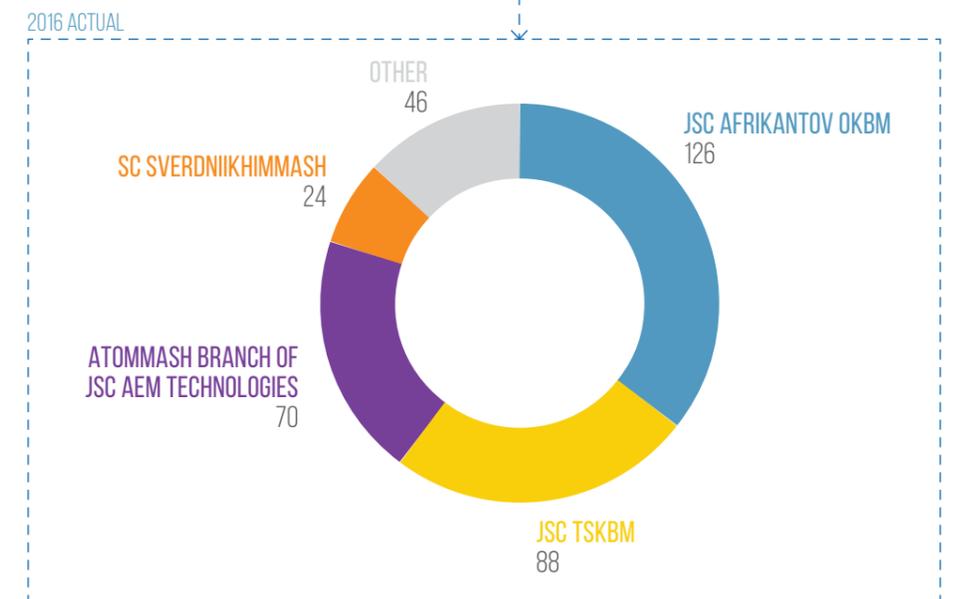
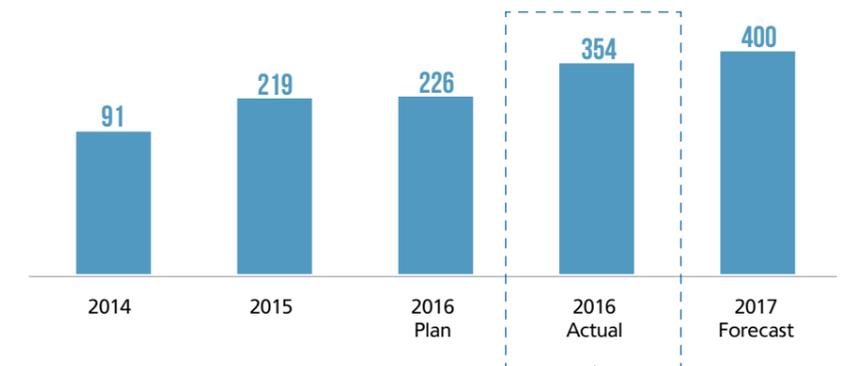
²¹ The low percentage of products that passed consumer input control at the first presentation at nuclear power plants is associated with a lengthy formulation of the Decision on the use of imported equipment at LLC Arako

4.3. OPTIMIZATION OF PRODUCTION PROCESSES

Implementation of the Rosatom Production System (hereinafter referred to as the RPS) is an industry project aimed at creating a universal system for managing comprehensive optimization of production and management processes at enterprises of Rosatom State Corporation, based on the best local and foreign experience.

In 2016, the number of RPS projects implemented in the Division increased by more than 50%. Most of them are implemented by JSC Afrikantov OKBM, JSC TSKBM, and the Atomash branch of JSC AEM Technologies.

Number of RPS projects



CASE

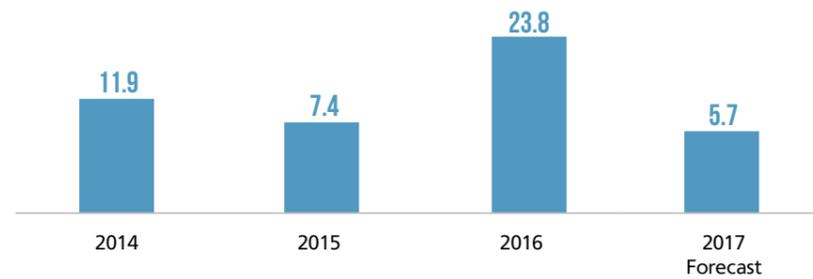
OF JSC AFRINKANTOV OKBM: LEADER OF RPS

Based on the results of the developing partner quality control (PQC) of the RPS deployment (the commission includes experts from Rosatom State Corporation, JSC NZHK, FGUP FNTSP PO Start, JSC KMZ), the effectiveness of the events held in 2016 and a high level of development of the RPS in JSC Afrikantov OKBM were re-confirmed.

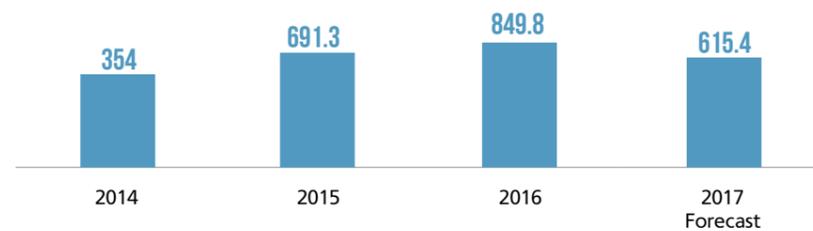
As a result of the implementation of the RPS projects, the economic effect in 2016 was about

850 million rubles, which is almost 23% above the indicator for 2015.

Costs of RPS projects (million rubles)



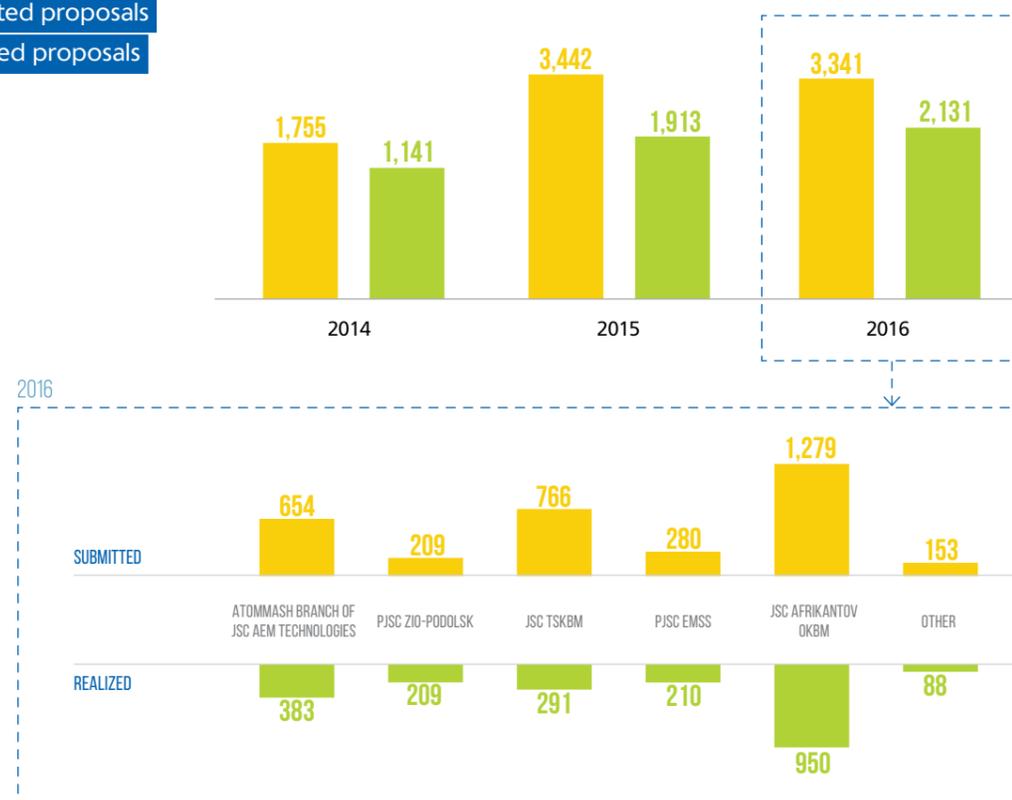
Economic effect from RPS projects (million rubles)



In 2016, employees of the enterprises of the Division submitted more than three thousand proposals to improve RPS projects, of which almost 2 / 3 were implemented. Despite the decrease in the number of proposals submitted in relation to 2015,

the share of sales increased to 64% (in 2015, 56%). Leaders in this indicator are JSC Afrikantov OKBM, JSC SverdNIKhimmash, and the Atom mash branch of JSC AEM Technologies.

Number of submitted proposals and share of realized proposals



One of the strategic objectives of Rosatom State Corporation is the reduction of process times. In

2016, 287 RPS projects (81% of the total number of RPS) addressed this issue in the Division.

CASE

OF JSC AEM TECHNOLOGIES: THE INITIATIVE IS ENCOURAGED

At the end of 2015, JSC AEM Technologies came out with an initiative to participate in the RPS-Enterprise program. The targets for Atom mash became very ambitious: the reduction in the time of the manufacturing process from 877 to 488 days for steam generators and from 760 to 680 days for reactor vessels.

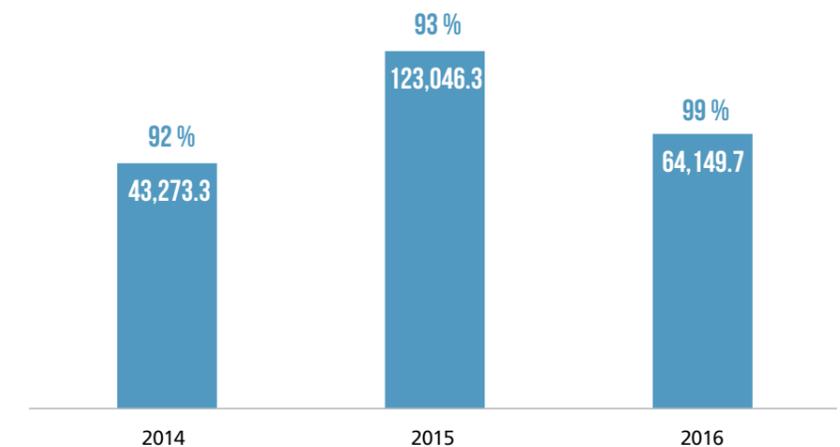
The well-coordinated work of the young, active, and goal-oriented Atom mash team made it possible not only to achieve the set goals but even to exceed them. The time of the process of production of the reactor vessel was reduced to 660 days, and for the steam generator to 474 days.

4.4. PROCUREMENT ACTIVITIES

In its procurement activity, Rosatom State Corporation is guided by the Federal Law No. 223-FZ dated July 18, 2011 «On the Procurement of Goods, Works, Services by Individual Types of Legal Entities» and the Federal Law No. 135-FZ dated July 3, 2016 «On the Protection of Competition.» The Unified Industry Procurement Standard of Rosatom State Corporation approved and introduced by Rosatom State Corporation within the scope of performance of this legislative instrument; In its turn, JSC Atom energomash as an organization that is part of the corporate profile of Rosatom State Corporation, joined and is guided in its activity by the provisions of the UIPS.

In order to ensure the unity of the economic space, to expand the opportunities for participation in procurement, to develop fair competition and efficient use of money, JSC Atom energomash pays special attention to the information transparency of procurement procedures at all Division's enterprises. For example, the indicator on the openness of purchases according to the results of the reporting period was 99.3%, and the economic effect of competitive procurement procedures, about 2 billion rubles (0.5 billion rubles more than in 2015).

Share of public procurement processes



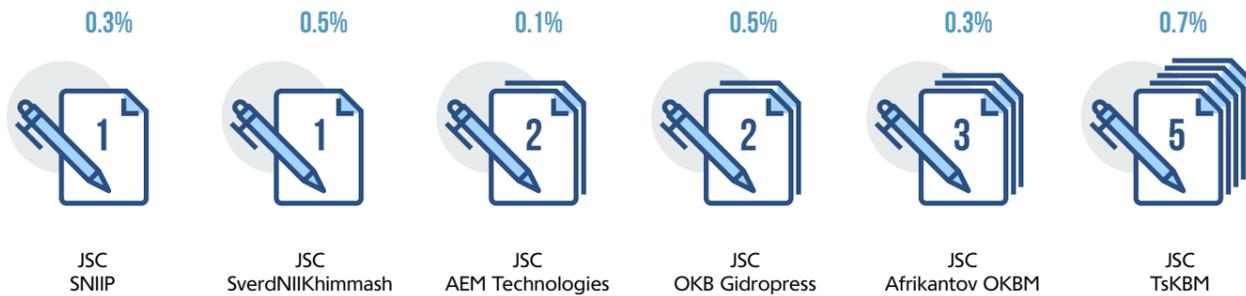
GRI 102-9, 102-10

One of the tools for public control of ongoing procurement is the ability to appeal the decision of the procurement organizer at any time. In order to develop this tool, a key performance indicator for the enterprises of the Division was developed and

implemented in terms of the share of justified or partially justified complaints about the actions of the procurement organizer. In 2016, this indicator was fulfilled at the target level of efficiency and amounted to 0.2%.

Share of justified or partially justified complaints

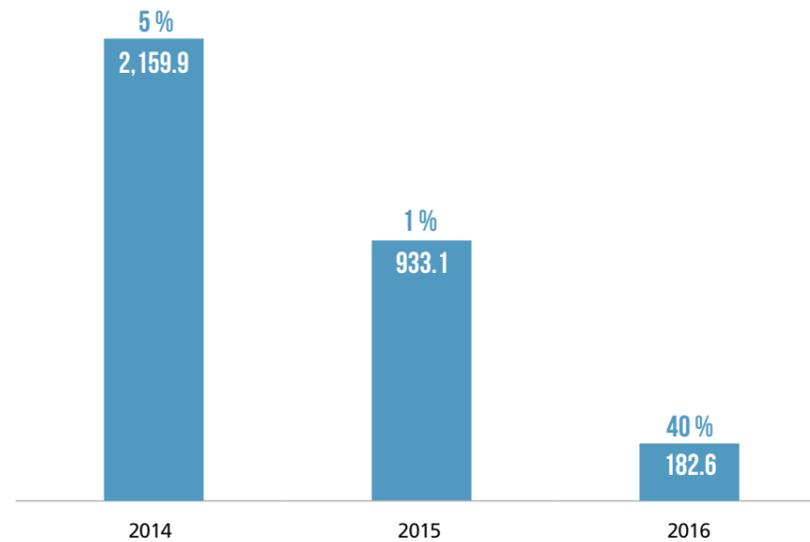
TOTAL: 14 VOLUME / 0.2 % INTEREST



According to the Resolution of the Government of the Russian Federation dated June 2, 2016 and registered under No. 1083-r, JSC Atomenergomash contributes to expanding access of small and medium-sized enterprises to the procurement processes. For example, in the reporting year, the

volume of purchases of the Division from small and medium-sized businesses (hereinafter referred to as SMEs) amounted to more than 182.6 million rubles, which is more than twice the normatively set target value of 18%.

Purchases from SMBs

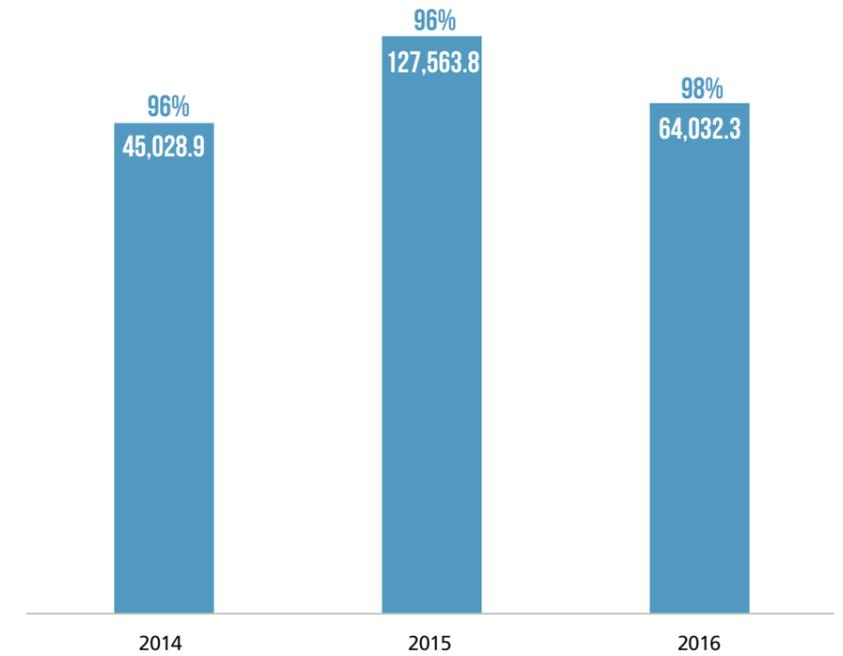


The Company has set an objective of a maximum substitution of imported equipment in the field of energy production. In 2016, the enterprises of the

Division entered into contracts with Russian suppliers amounting 64 billion rubles, or 98% of the total volume of purchases (as compared to 96% in 2015).

GRI 204-1

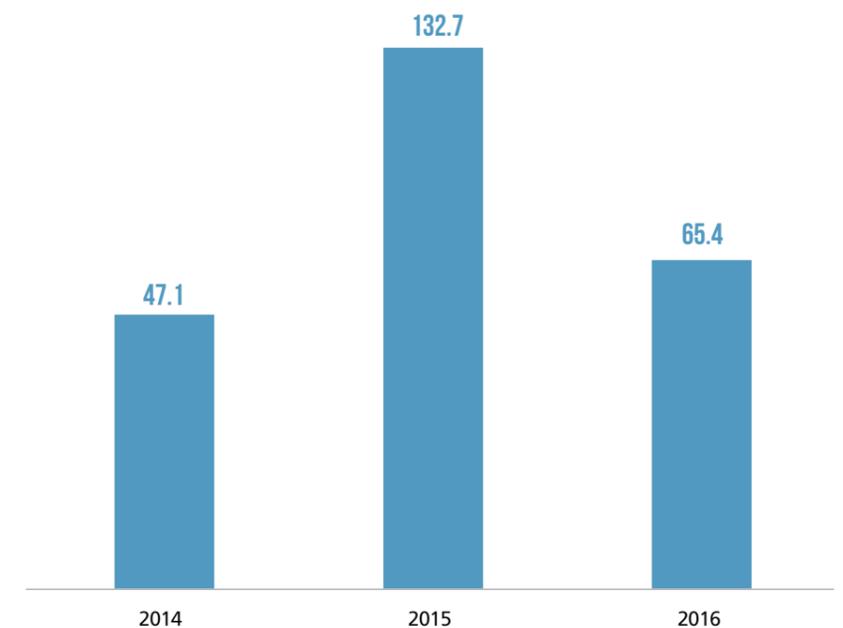
Share of purchases from Russian suppliers



Upon the execution of the APP in 2016, the enterprises of the Division concluded contracts for a total of 65.4 billion rubles. At the same time, more than 50% of the volume of concluded contracts were concluded by JSC AEM Technologies and JSC Afrikantov OKBM (main production sites). In the

general dynamics, there is a tendency for a uniform distribution of the volume of concluded contracts at the main production sites of the Division depending on the generation of the production program.

Volume of concluded contracts (billion rubles)



PRODUCTION DEPARTMENT
ATOMMASH – BRANCH OF JSC AEM-TECHNOLOGIES

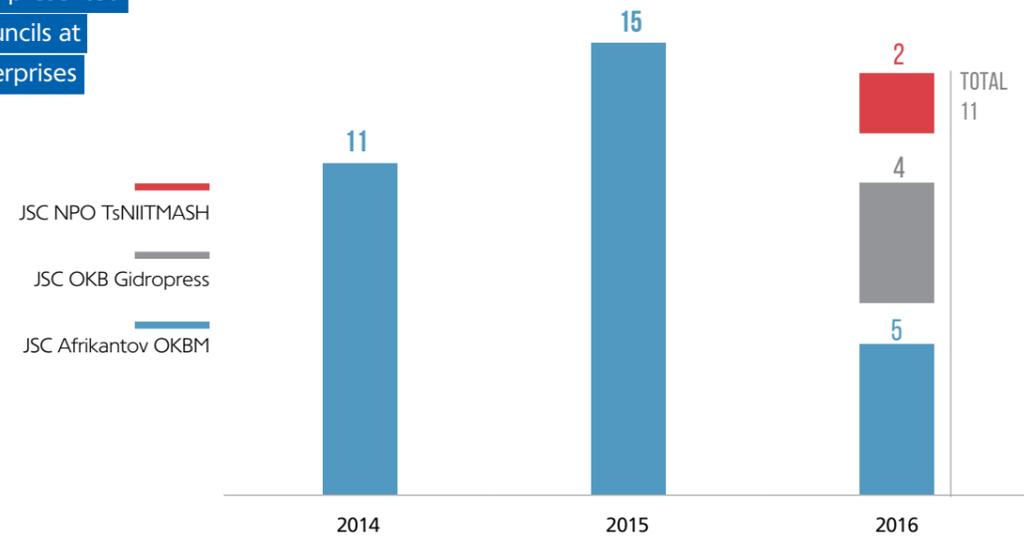
5.1. SCIENTIFIC ACTIVITIES

JSC Atomenergomash unites a whole host of leading institutes and design bureaus, which possess unique competencies in developing innovative solutions for the power industry. Many scientists who are employed by enterprises of the Division have state awards for their developments. Enterprises of the institute have in-house centers for postgraduate studies and dissertation councils.

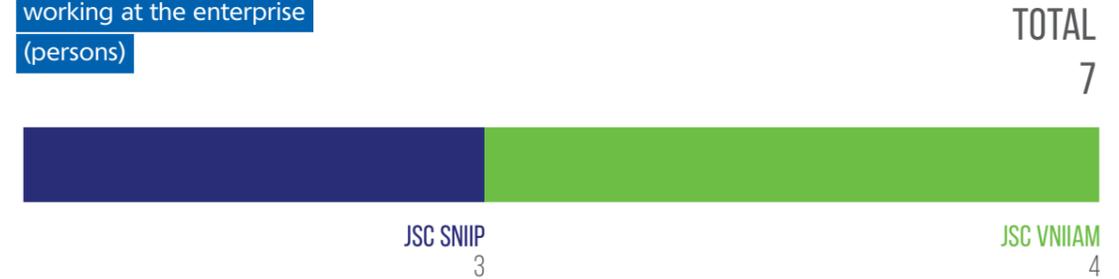
5. INNOVATION ACTIVITIES

JSC ATOMENERGOMASH UNITES A WHOLE HOST OF LEADING INSTITUTES AND DESIGN BUREAUS, WHICH POSSESS UNIQUE COMPETENCIES IN DEVELOPING INNOVATIVE SOLUTIONS FOR THE POWER INDUSTRY

Number of theses presented in dissertation councils at the Division's enterprises



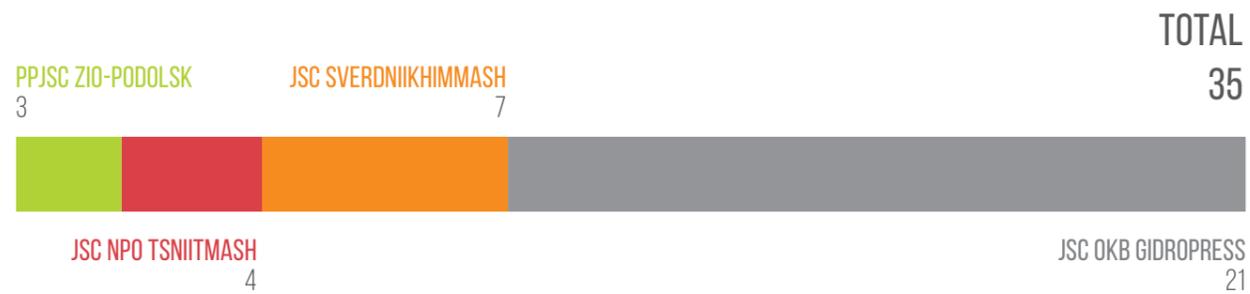
Number of doctoral students working at the enterprise (persons)



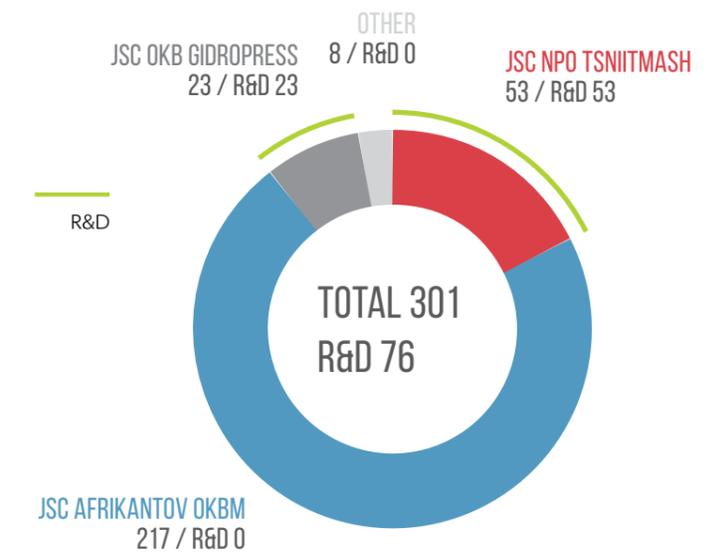
Important indicators of the effectiveness of the scientific activities of the Division are the number of published scientific papers and articles and

participation in scientific conferences with reports; JSC Afrikantov OKBM and JSC OKB GIDROPRESS have been the most active.

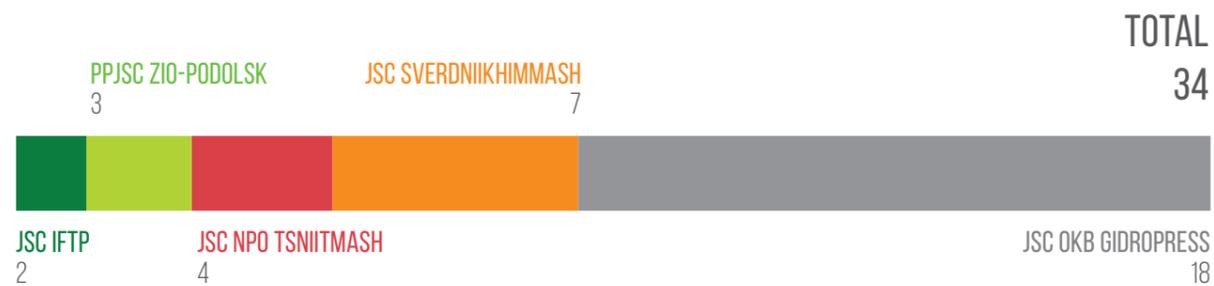
Number of postgraduate students in postgraduate centers at the Division's enterprises (persons)



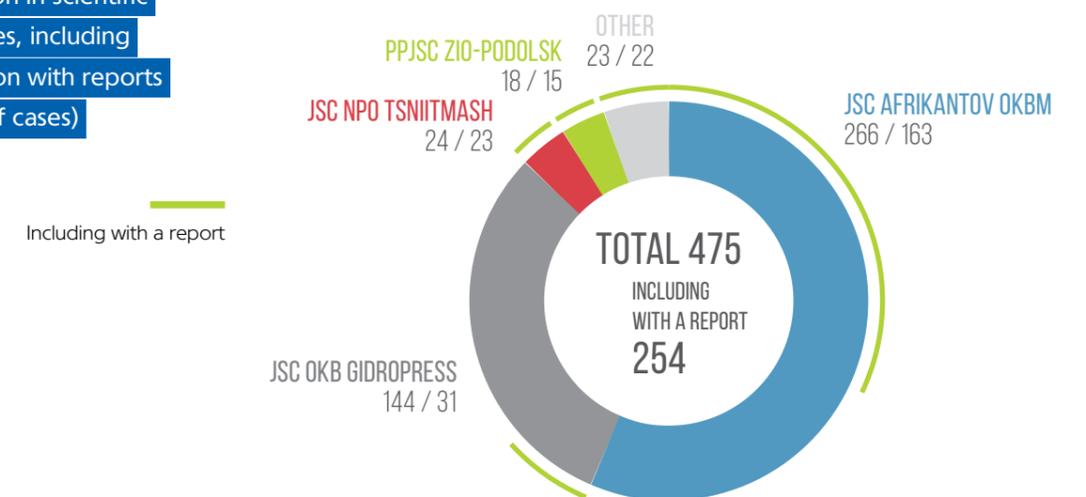
Published scientific papers and articles, including the same in the field of R&D (publications)



Number of post-graduate students working at the enterprise (persons)



Participation in scientific conferences, including participation with reports (number of cases)



5.2. INNOVATION DEVELOPMENT

The Innovative Development Program of JSC Atomenergomash has been designed to ensure implementation of the Division's strategy and includes the main business lines and measures of the innovation activities of the Division. The purpose of developing the Program is to ensure high competitiveness and economic efficiency of the Division's enterprises through:

- development and implementation of innovative, high-tech, serial, integrated products and their maintenance in all stages of their life cycle on local and foreign markets;
- development and optimal utilization of innovative processes (process stages) used in production and other activities of the enterprises;
- participation in the development and manufacture of pilot and experimental equipment to support research programs of State Research Centers of the Russian Federation and conversion of the research results to the products and product manufacturing technologies.

CASE

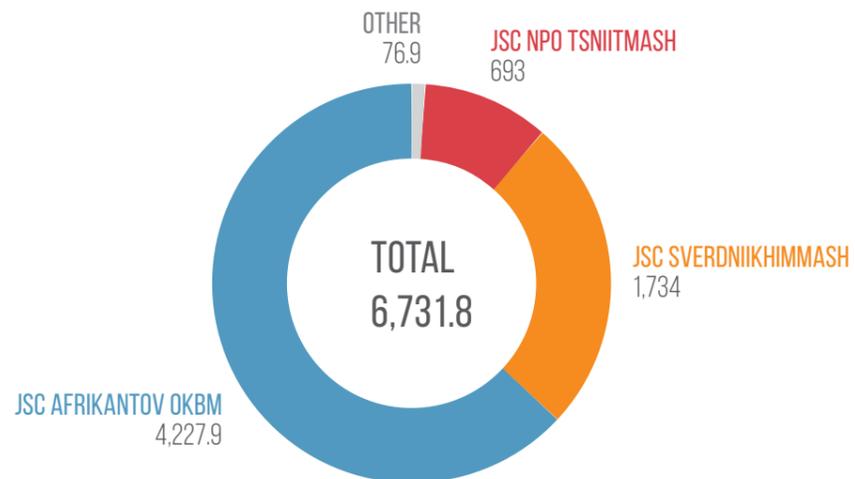
OF JSC NPO TSNIITMASH: METALLURGY IN 3D

TsNIITMASH created the first domestic industrial 3D printer together with JSC Science and Innovations. The device and the software for it are completely domestic development.

The printer is equipped with a 1,000 W laser and a three-axis scanning optical system. It operates on the principle of layer-by-layer selective laser melting, and powders based on various metals can be used as a raw material.

Upon completion of work in the test mode and the direction of products from various metals to the research laboratory, the 3D printer will be put into production.

R&D expenditures, million rubles



In 2016, enterprises of JSC Atomenergomash (JSC Afrikantov OKBM, JSC NPO TsNIITMASH,

JSC SverdNiiKhimmash) signed 13 contracts with universities for a total of 70 million rubles.

5.3. INNOVATION MANAGEMENT

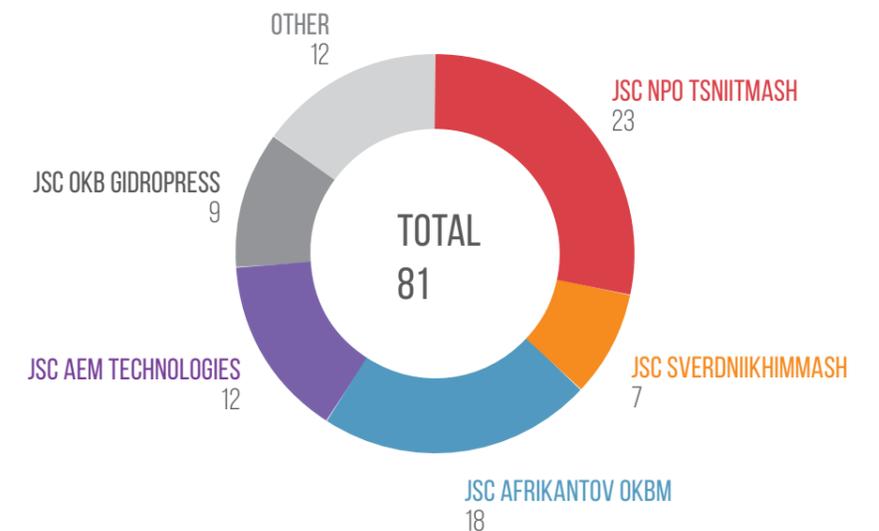
The enterprises of the Division implement and introduce innovative solutions in the production process on a regular basis in order to optimize the work and to reduce the timing of the process. In 2016, the enterprises of the Division acquired no IP assets from outside companies; at the same time, the IP assets for a total of more than two million rubles were sold to outside companies.

In 2016, as part of the project to manufacture the RITM-200 reactor plant, the following solutions were introduced into production:

- the metallization technology (application of a protective coating using the gas-flame method) of the capacitive equipment for the reactor plant;
- the technology of processing deep ring grooves in the reactor vessel;
- the technology of processing slanting nipples by drilling deep holes;
- the technological process of heat treatment of surfacing and welded seams of reactor plant parts.

In addition, experimental work was conducted on the use of additive technologies using a 3D printer instead of machining on imitators of a product of the «displacer» type for the RITM-200 reactor unit.

Number of received patents and intellectual property certificates (pieces)





INSTALLATION OF THE BODY OF THE FIRST REACTOR IN A SPECIAL SLIPWAY IN THE VERTICAL POSITION
PJSC ZIO-PODOLSK

6.1. ECOLOGICAL MANAGEMENT

Issues of environmental management are extremely important in the operation of the Division due to the existence of a wide network of manufacturing enterprises of various profiles, which consume resources in the production process and impact the environment to some extent.

6. ENVIRONMENTAL IMPACT

ISSUES OF ENVIRONMENTAL MANAGEMENT ARE EXTREMELY IMPORTANT IN THE OPERATION OF THE DIVISION

Enterprises holding ISO 14001 certificate²³

COMPANIES	AVAILABILITY OF ISO 14001 CERTIFICATE
JSC SNIIP	YES
PJSC ENERGO MASH SPETSSTAL	YES
PJSC ZIO-Podolsk	2017

The enterprises of the Division make payments to the budget of the Russian Federation for preventing the impact on the environment and the environmental management system. In 2016, the total cost for this article amounted to more than 100 million rubles.

GRI 307-1

For violation of the procedure established by the legislation of the Russian Federation, as well as for non-compliance with environmental and sanitary-epidemiological requirements when handling waste products of production and consumption, the Divisions enterprises bear the responsibility provided by law. In 2016, organizations of the corporate profile were fined 160 thousand rubles based on the results of environmental assessments (non-financial sanctions were not applied).

Engineering enterprises require an uninterrupted and reliable supply of energy to support the manufacturing process.

Pursuant to the Order of Rosatom State Corporation No. 1/676-P dated August 9, 2011, the Division's enterprises implement the program "Energy conservation and energy efficiency improvement. The traditional KPI in this area is «Reducing the cost of consuming energy resources in the nuclear industry organizations in comparable conditions relative to the base year 2015. The indicator was fulfilled above the target level (3%) and amounted to 4.7%.

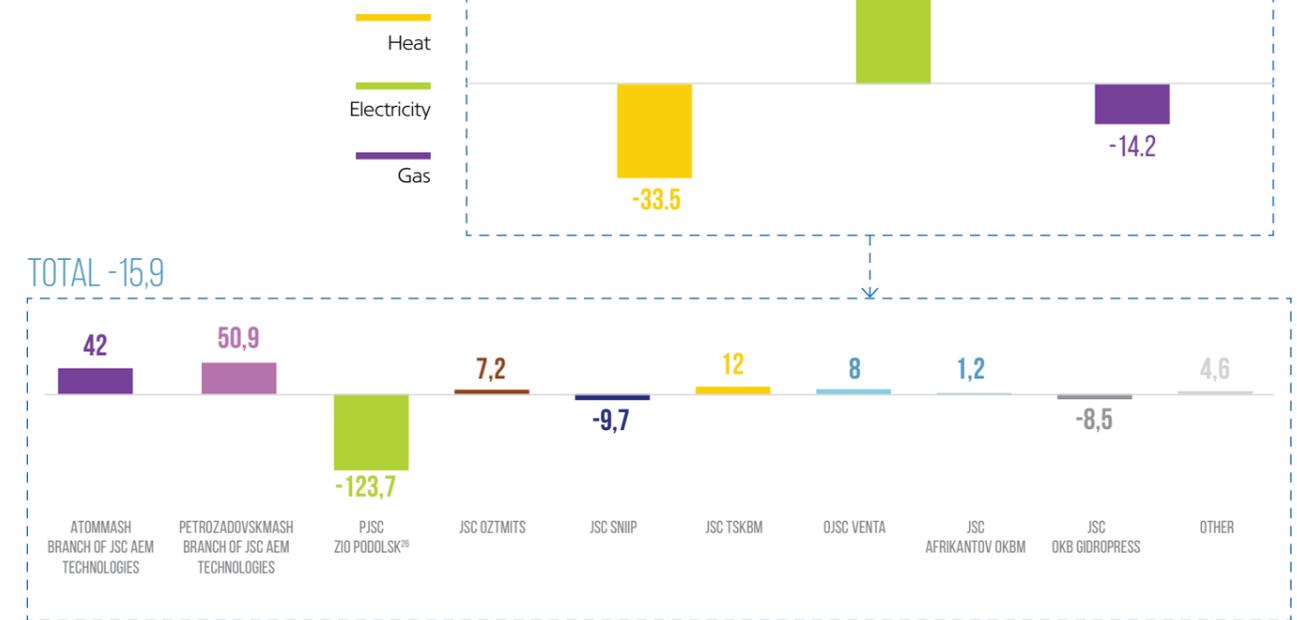
Energy consumption on the average by the Division has a tendency to decrease, which is especially typical for large enterprises with high-energy consumption (JSC AEM Technologies, PJSC ZiO-Podolsk, JSC Afrikantov OKBM).

The largest amount of energy saved (under comparable conditions) was shown by two branches of JSC AEM Technologies: Atommash and Petrozavodskmash. PJSC ZiO-Podolsk showed an

increase in energy consumption under comparable conditions due to the change in the volume of production.

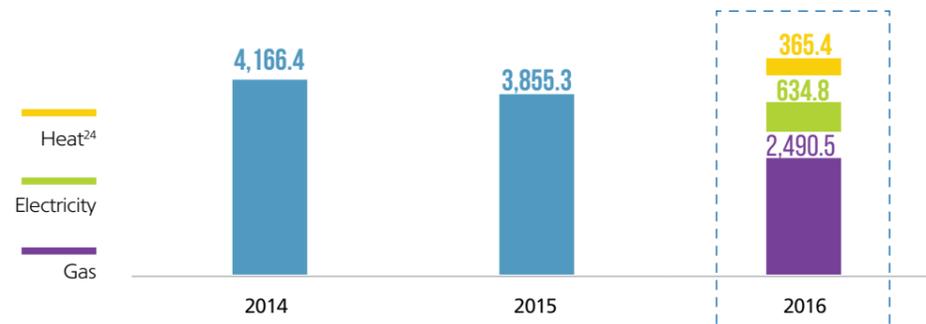
GRI 302-4

Energy savings, thousand GJ²⁵

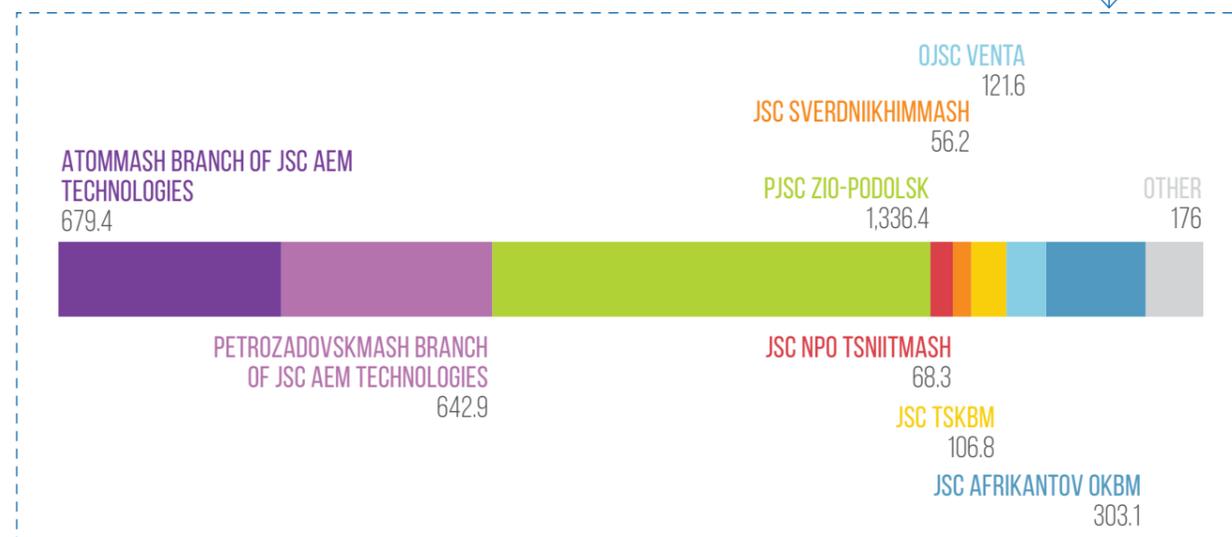


GRI 302-1

Energy Consumption (thousand GJ)



TOTAL 3 490,7



²³ ISO 14001 is a series of international standards on environmental management.

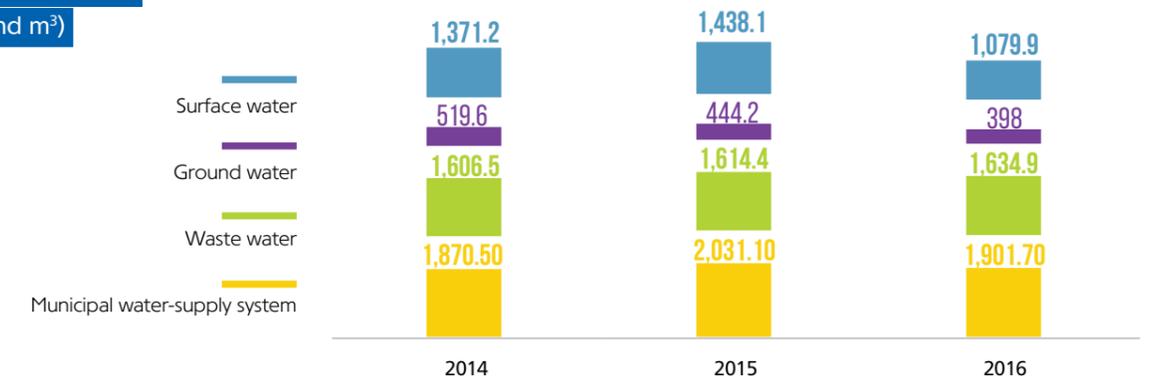
²⁴ The heat supply of PJSC ZiO-Podolsk, JSC Afrikantov OKBM and Petrozavodskmash – branch of JSC AEM-Technologies is carried out by means of its own boiler plants, the main fuel for which is natural gas.

Water resources support economic activities of enterprises and are also used in industrial processes

(for cooling / heating systems; for checking the tightness of products; and as part of process fluids).

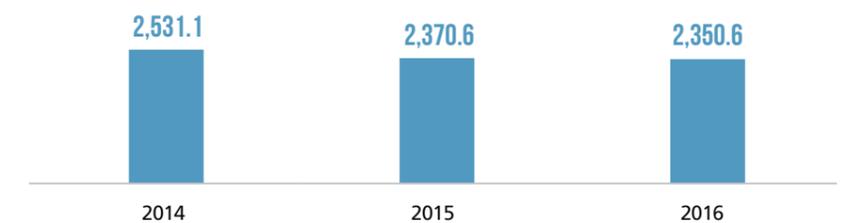
GRI 303-1

Water Consumption (thousand m³)



Volume of wastewater discharges

(thous. m³)



²⁵ Since 2016, 2015 has been used as the base year; therefore, the data for 2014 and 2015 are not comparable and are not given in the Report

²⁶ In 2016, the indicator deteriorated due to changes in the range of products

6.2. EMISSIONS AND WASTES

In accordance with the current legislation of the Russian Federation, the enterprises develop draft standards for waste generation and disposal limits as well as drafts of maximum permissible emissions of pollutants into the air. As a result, enterprises obtain permission documents for disposal of production and consumption wastes and permits for air pollutant emissions.

The majority of direct emissions of greenhouse gases are caused by PJSC ZiO-Podolsk, PJSC EMSS, JSC Afrikantov OKBM, Petrozavodskmash and Atomash (carbon dioxide) branches of JSC AEM Technologies, the Petrozavodskmash branch of JSC AEM Technologies and JSC SNIIP (nitrous oxide).

GRI 305-1
Direct emissions of greenhouse gases (tons)



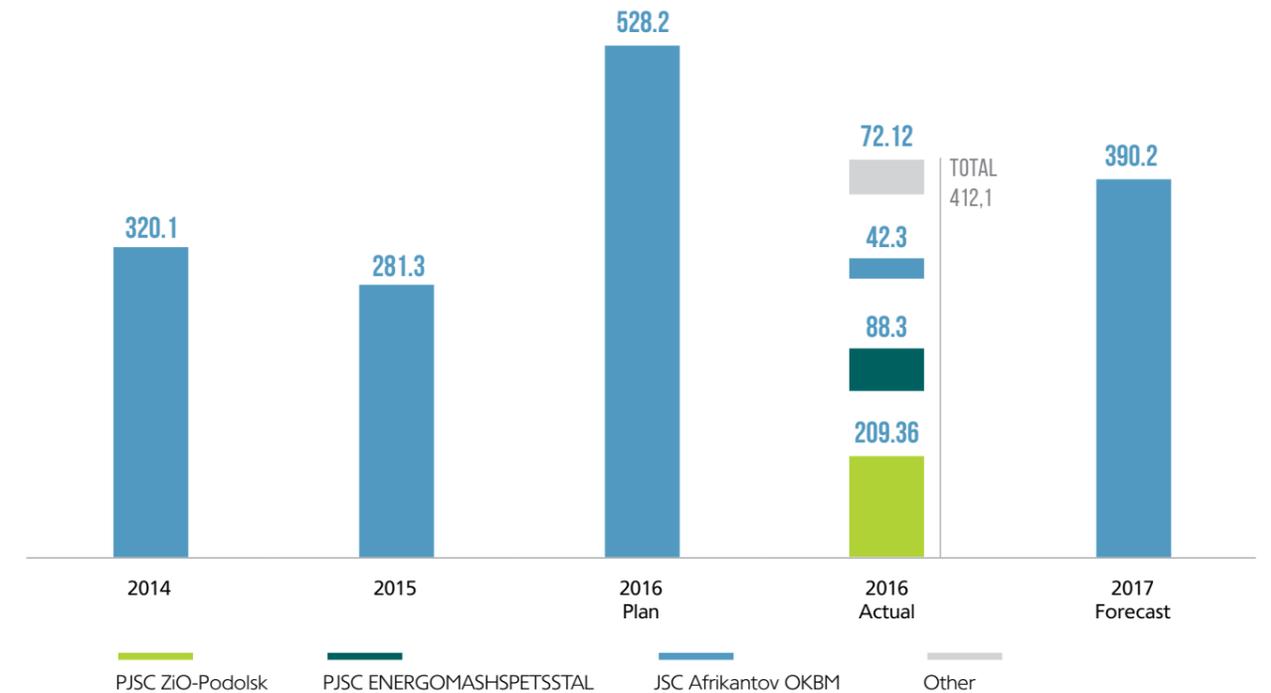
Emissions of ozone-depleting substances (carbon tetrachloride) is only carried out by three enterprises of the Division.

GRI 305-6
Emissions of ozone-depleting substances (tons)

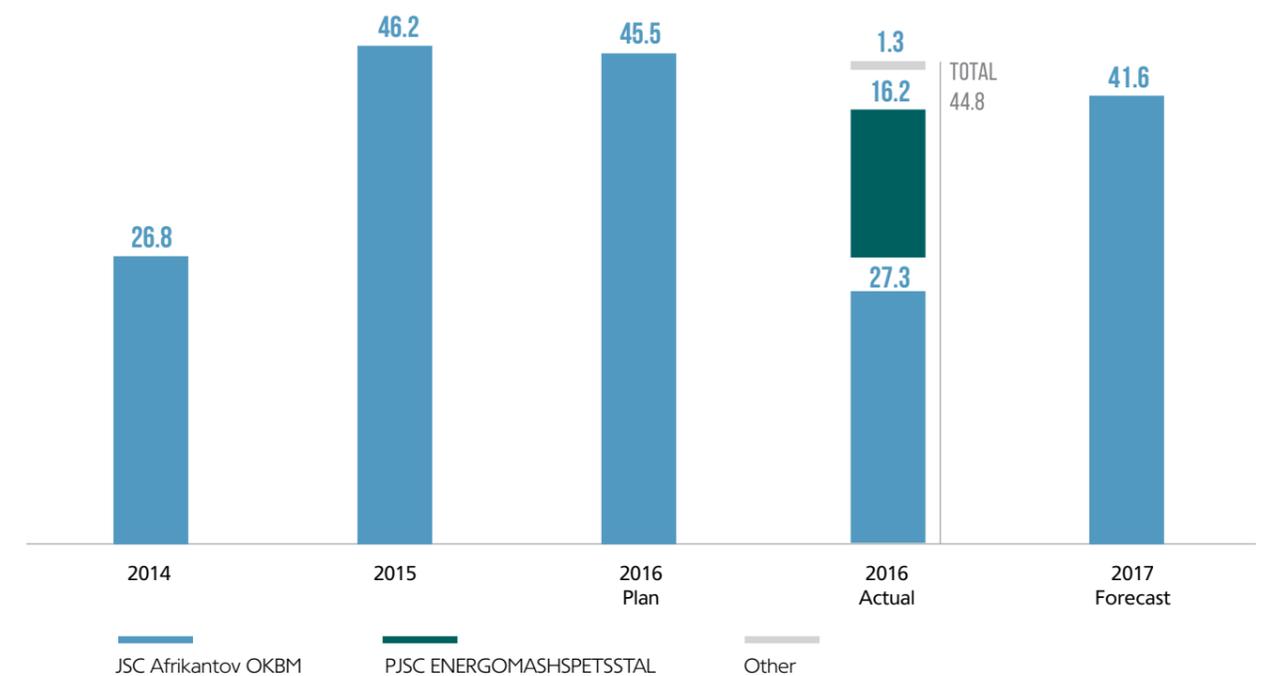
COMPANY	SUBSTANCE TYPE	2014	2015	2016 PLAN	2016 ACTUAL	2017 FORECAST
PJSC ZiO-Podolsk	Carbon tetrachloride	0.013	0.013	0.013	0.013	0.013
	Trifluorochloromethane	0.1	-	-	-	-
JSC SverdnIIKhim mash	Carbon tetrachloride	0.04	0.04	0.04	0.04	0.01
JSC Afrikantov OKBM	Carbon tetrachloride	0.02	0.018	0.022	0.018	0.018
TOTAL		0.073	0.071	0.075	0.071	0.041

Most of the emissions originate from PJSC Podolsk, and the branches of JSC AEM Technologies, Energomashspetsstal, JSC Afrikantov OKBM, PJSC ZiO-

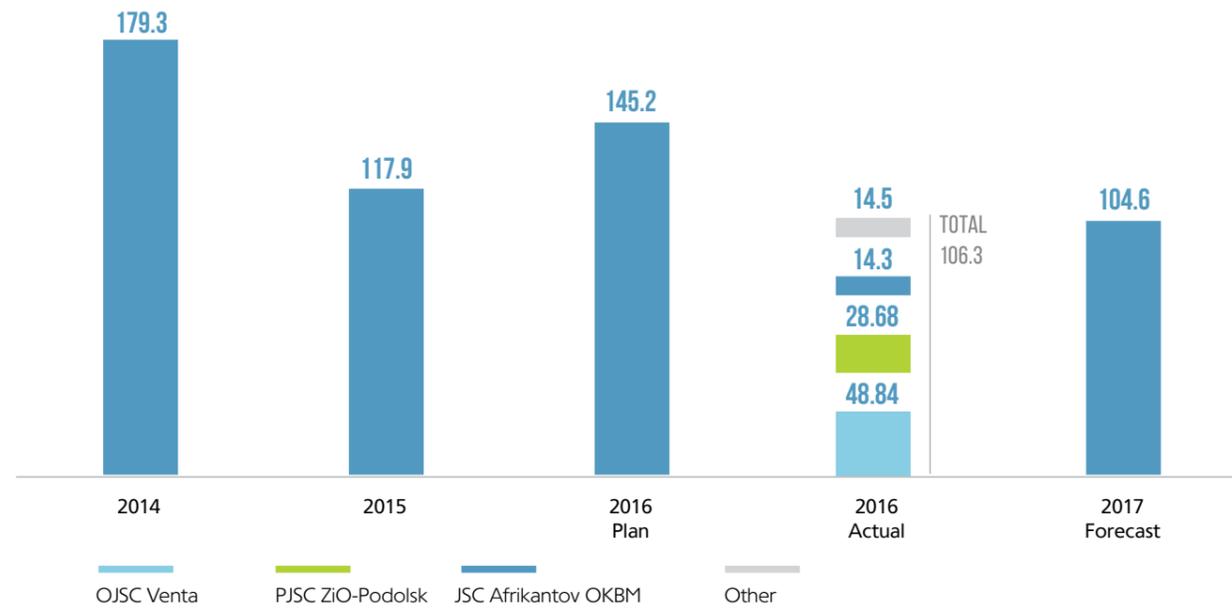
GRI 305-7
Emissions of other pollutants into the air NO_x (tons)



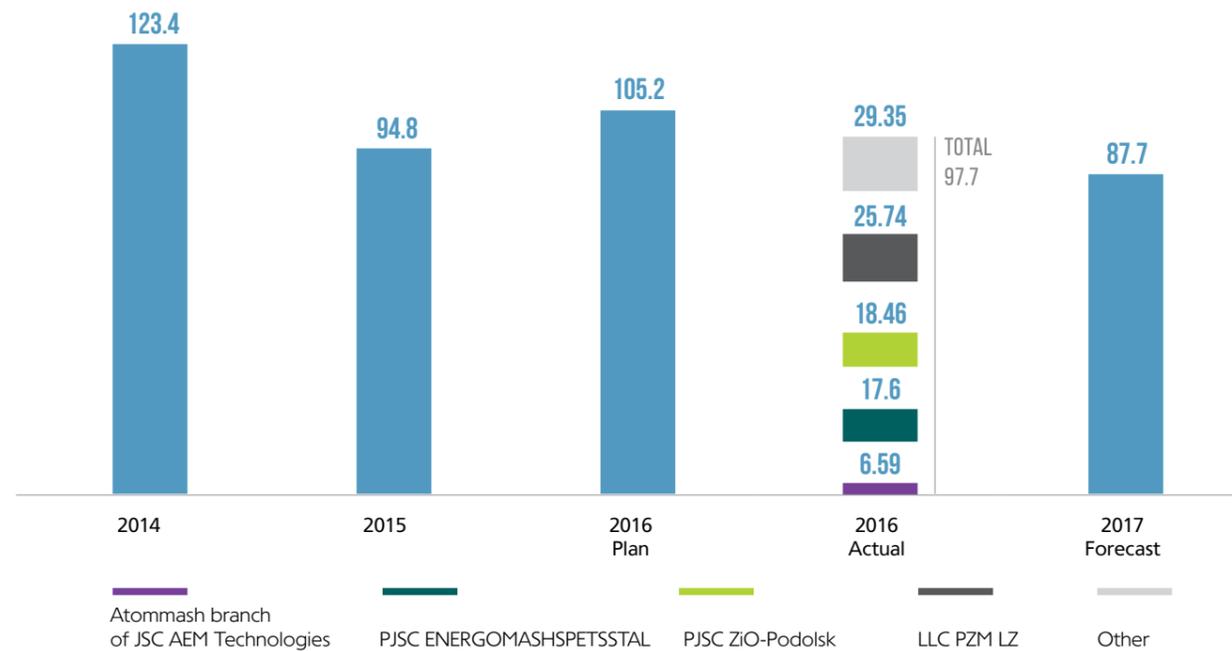
Emissions of other pollutants into the air SO_x (tons)



Emissions of other pollutants into the air: volatile organic compounds (tons)



Emissions of other pollutants into the air: solid particles (tons)

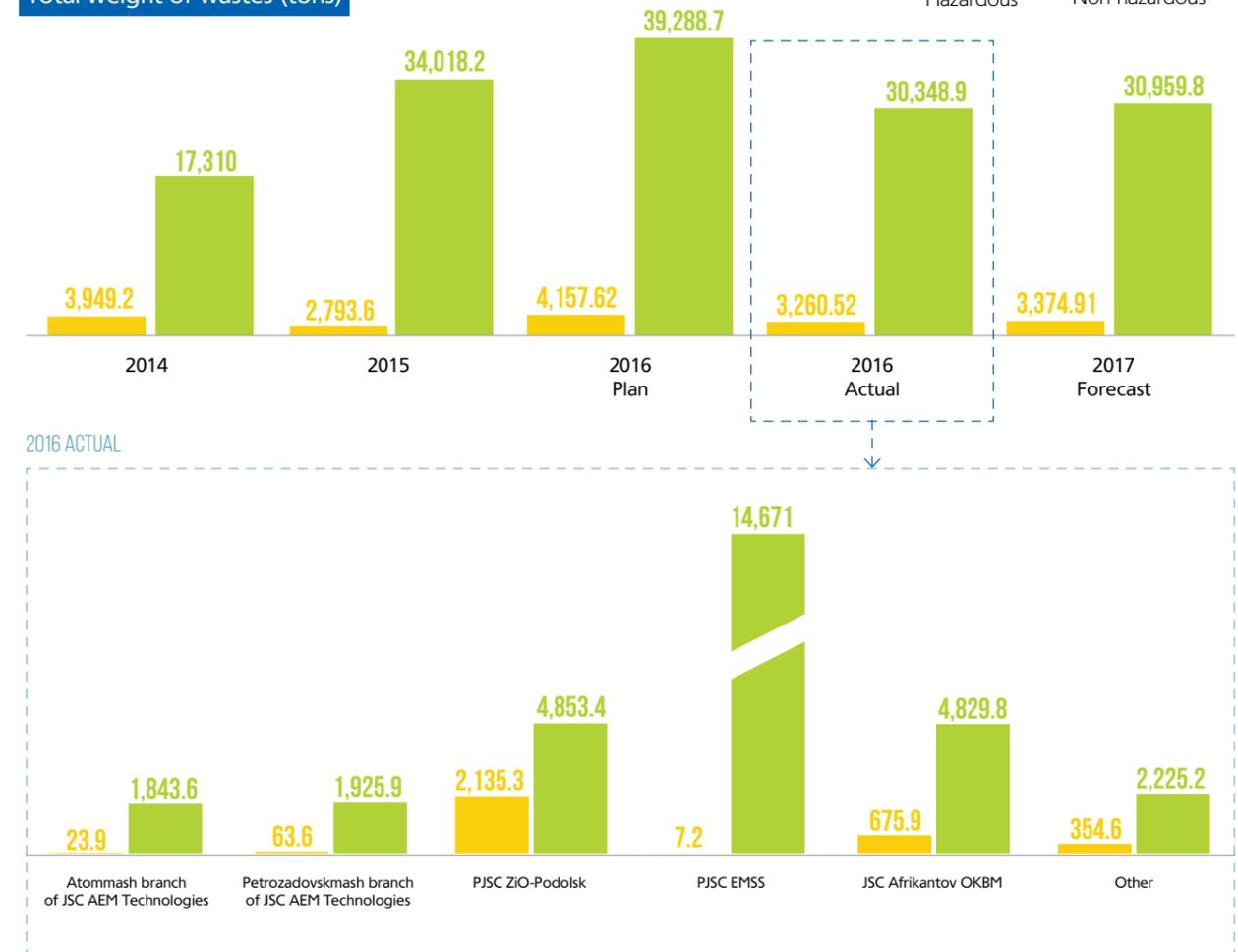


The weight of waste generated in the whole Division declined by almost 9% as compared to 2015. Approximately 90% of the generated wastes are classified as "non-hazardous"; more than half of them are generated at PJSC EMSS. The bulk of hazardous

wastes are generated at key production sites: JSC Afrikantov OKBM, PJSC ZIO-Podolsk

GRI 306-2

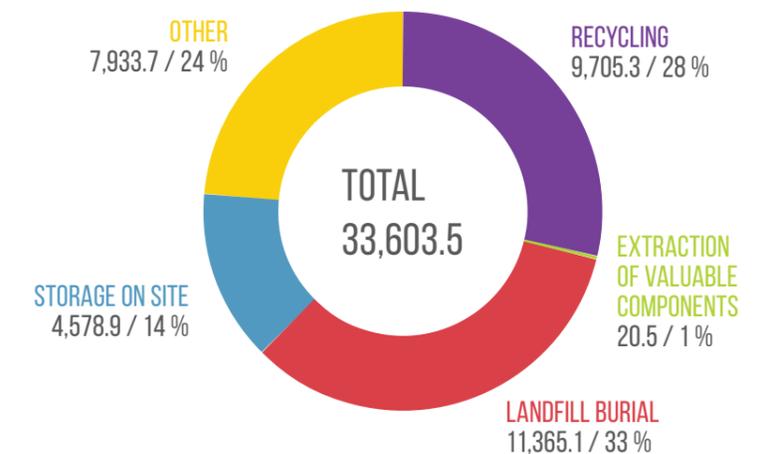
Total weight of wastes (tons)



According to the current legislation, the enterprises of the Division are obliged to maintain reliable records of generated, stored, transferred, transported, used, processed, and buried waste in accordance with the current legislation.

The main waste treatment methods include the reuse or the disposal at landfills; these methods of treatment were used to process more than 28% and 33% of waste respectively.

Waste disposal method



HYDRAULIC TEST OF THE VVER-1200 REACTOR FOR THE POWER UNIT NO. 1 OF THE BELARUSIAN NPP
ATOMMASH – BRANCH OF JSC AEM-TECHNOLOGIES

7.1 PERSONNEL COMPOSITION

Staffing for the enterprises is one of the most important elements of efficient activities management and certainly one of the key priorities in the development of the Division's enterprises. The Company is a socially responsible business and is committed to providing equal opportunities for different gender and age groups of employees.

GRI 102-7, 102-8

Over 80% of the total number of employees is employed at the four largest enterprises of the Division: JSC Afrikantov OKBM, JSC AEM Technologies, PJSC ZiO-Podolsk, PJSC Energomashspetsstal, and JSC TskBM. Given the production specifics, namely, the physically demanding nature of work at production facilities, there is a predominance of men over women, with an average ratio of 66 to 34.

7. HR MANAGEMENT

STAFFING FOR THE ENTERPRISES IS ONE OF THE MOST IMPORTANT ELEMENTS OF EFFICIENT ACTIVITIES MANAGEMENT AND CERTAINLY ONE OF THE KEY PRIORITIES IN THE DEVELOPMENT OF THE DIVISION'S ENTERPRISES

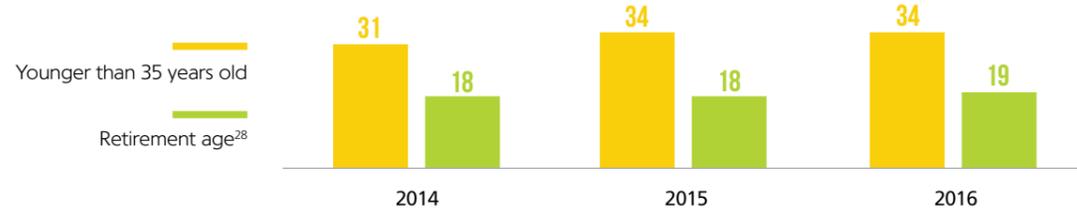
Number of staff disaggregated by sex²⁷ (people)

COMPANY	2014	2015	2016	
	Total	Total	Total	Men/women
JSC Afrikantov OKBM	4,232	4,259	4,256	1,398 / 2,858
JSC AEM Technologies	3,845	3,688	3,471	1,000 / 2,471
PJSC ZIO-Podolsk	2,893	2,870	3,003	1,230 / 1,773
PJSC ENERGO MASHPETSSTAL	2,076	1,928	1,647	631 / 1,016
JSC OKB Gidropress	1,554	1,533	1,541	492 / 1,049
JSC TsKBM	1,127	1,059	1,011	371 / 640
JSC SNIIP	458	508	525	158 / 367
JSC SverdNIKhimmash	601	551	488	232 / 256
JSC NPO TsNIITMASH	589	504	490	146 / 344
LLC PZM LZ	370	412	393	128 / 265
JSC Atomenergomash	269	257	287	139 / 148
OJSC Venta	378	340	287	136 / 151
ARAKO spol. s.r.o.	206	200	205	46 / 159
GANZ EEM LLC	141	120	119	23 / 96
JSC OZTMITS	133	137	119	53 / 66
JSC ATM	105	107	116	42 / 74
LLC AAEM	90	92	96	24 / 72
JSC VNIIAM	164	134	84	33 / 51
JSC IFTP	63	64	63	23 / 40
JSC ZIOMAR EC	323	280	22	15 / 7
JSC REMKO	8	12	8	2 / 6
TOTAL	19 625	19 055	18 231	6 314 / 11 917

The main part of the staff is full-time (97%). Urgent contracts have been drawn up with 3.8% of employees.

The Division's enterprises manage to maintain the optimal balance of highly skilled experienced employees of retirement age (about 20%) and young prospective employees (more than a third).

GRI 405-1 Personnel structure by age groups (%)

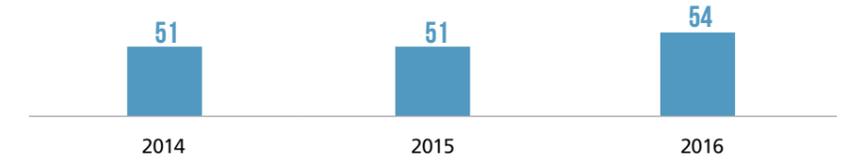


²⁷ At the end of 2016
²⁸ Share of women older than 55 years old and men older than 60 years old

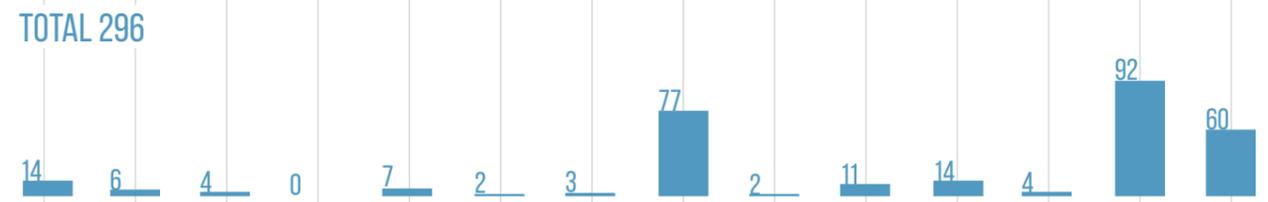
In general, the required personnel qualifications are achieved through appropriate education: employees with secondary vocational education prevail at production sites; in engineering design and

management companies, there is a prevalence of employees with higher professional education and with academic degrees and titles of professors, and RAS Academicians.

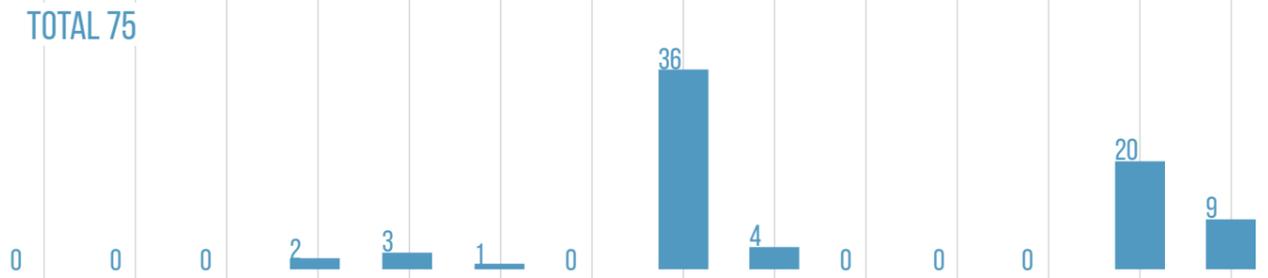
Share of employees with higher education (%)



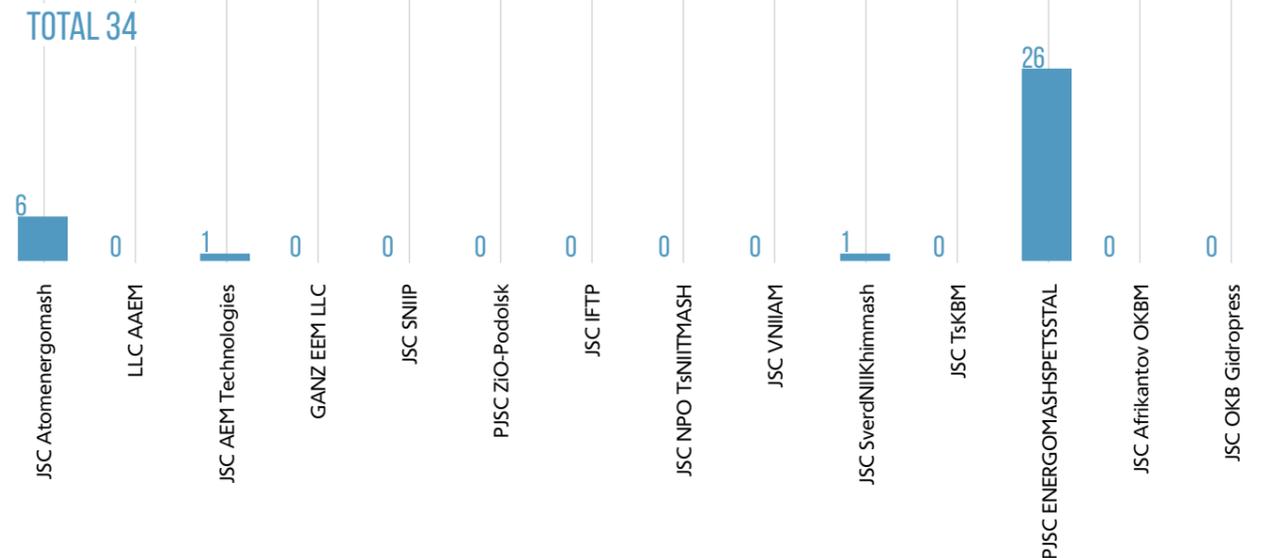
Candidates (persons)



Doctors of Science (persons)



MBA's (persons)



**RAS Academicians, professors
(persons)**

ACADEMICIANS		PROFESSORS
-	JSC Atomenergomash	1
1	JSC NPO TsNIITMASH	20
1	JSC Afrikantov OKBM	6
2	JSC OKB Hidropress	2
4	TOTAL	29

7.2. LABOR CONDITIONS AND ORGANIZATION

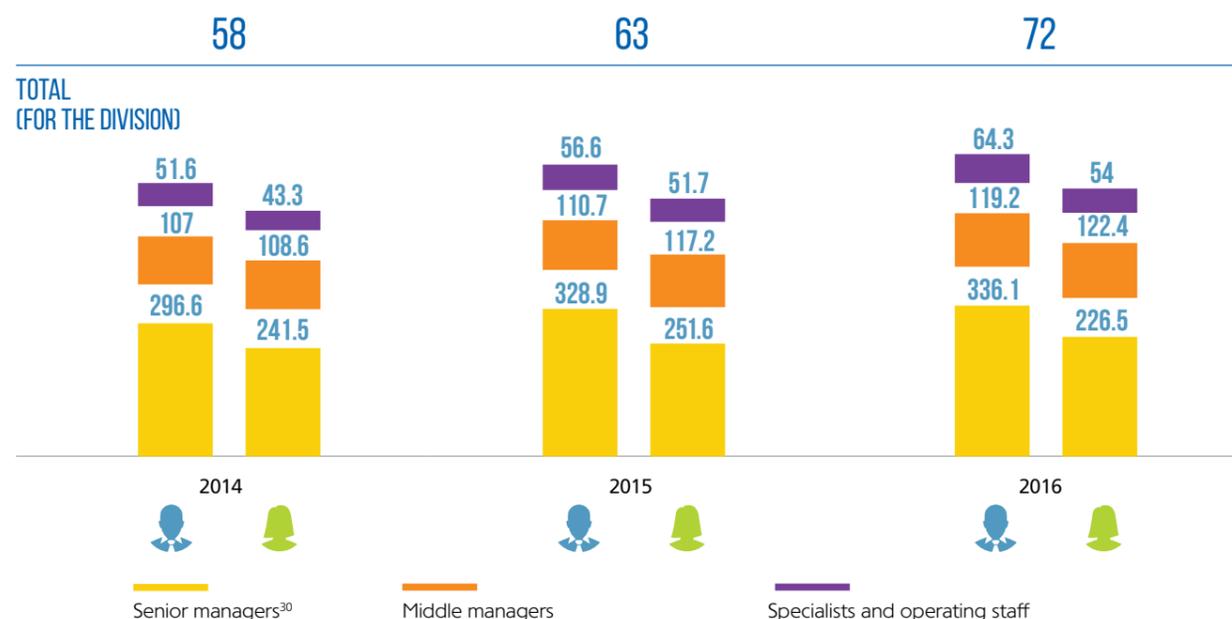
In order to increase the transparency of the wage system and to increase the level of motivation, the Unified Unified Wage System was implemented in the Division, which allows establishing equal pay for employees who occupy comparable positions in Rosatom State Corporation and determines the dependence of a significant part of the total remuneration of employees on the achievements of KPIs. The main objective of the current system is to stimulate performance and to guarantee social protection to the employees of the Company.

The organizations annually consider the indexation of employees' salaries equal at least to the inflation rate in Russia according to the Federal State Statistics Service. In 2016, the average salary of employees at the enterprises of the Division increased by 14% and reached 72 thousand rubles. At the same time, the growth rates of wages at individual enterprises were higher than in presence regions (see Section 8.1).

GRI 102-41, i

Most enterprises of the Division have collective agreements, which apply to all employees. (80.7% of employees of the Division).

**Average wage by sex and group of employees
(thousand rubles / month)²⁹**



²⁹ Including KPI-based bonuses.

³⁰ The category «top managers» includes Chief Executive Officers and Deputies Chief Executive Officer of the enterprises of the Division

GRI 401-2

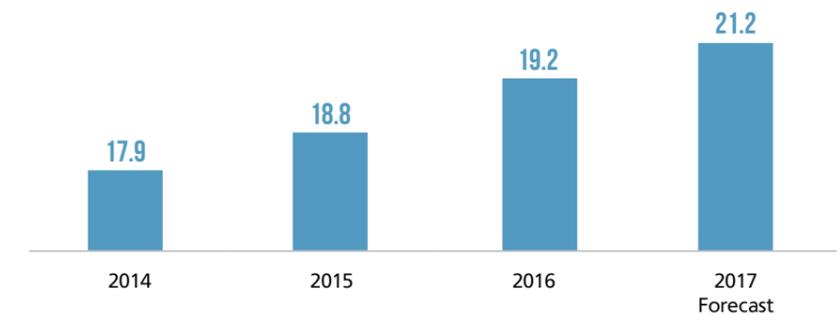
Enterprises of the Division provide all their employees (regardless of their status and type of contract) with a comprehensive package of social and fringe benefits approved in the applicable regulatory documents:

- medical insurance;
- pension programs;
- housing programs;
- health resort treatment and vacations for employees and their children;

- holding sports and cultural events;
- catering for employees;
- financial aid;
- corporate benefits on subscriptions to sports and health facilities;
- support to industry veterans and retirees.

Social spending per employee grows annually and in 2016 amounted to 19.2 thousand rubles.

**Social expenses per employee
per year (thousand rubles)**



7.3. OCCUPATIONAL SAFETY AND HEALTH

The enterprises of the Division comply with all industrial and occupational safety and health requirements. The performance in this area is assessed based on the "Lost Time Injury Frequency

Rate (LTIFR)" KPI. In the reporting year, the figure was 0.25, exceeding the target value (0.54) more than twice.

GRI 403-2

**Accident and occupational
disease frequency rate**

NUMBER OF INJURIES	2014		2015		2016	
	MEN.	WOMEN	MEN.	WOMEN	MEN.	WOMEN
Number of injuries	21	1	10	4	10	-
Number of days lost owing to injuries	1,614		1,073		542	
Occupational injuries and diseases	2	-	1	-	1	-
Number of fatal accidents	1	-	-	-	1	-
LTIFR ³¹ (%)	0.49		0.44		0.25	

A number of enterprises have a certificate of compliance with the requirements of the series

of international standards ONSAS 18001 on the Occupational Safety and Health Management System.

³¹ The indicator is calculated without taking into account the foreign enterprises of the Division

List of enterprises holding OHSAS 18001 certificates

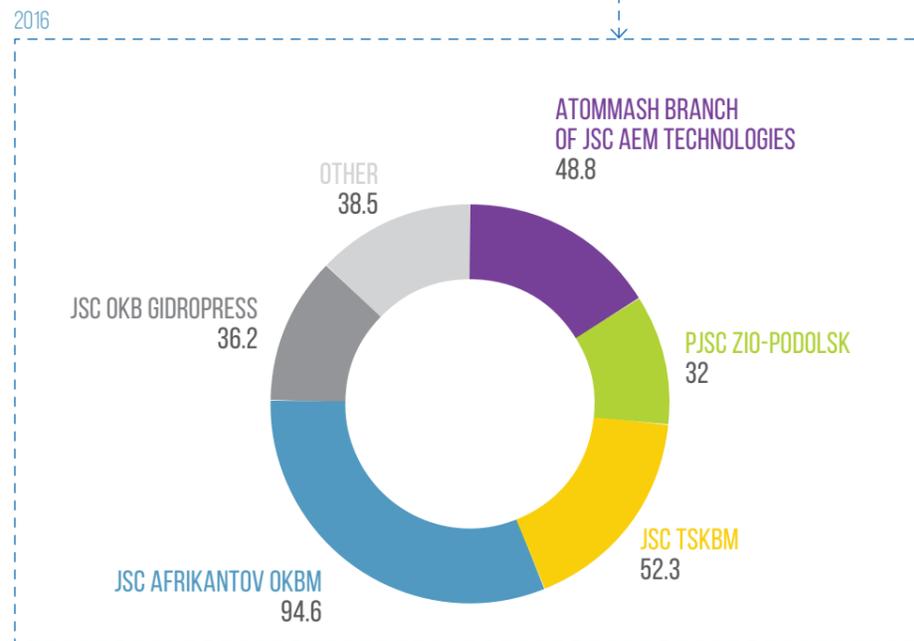
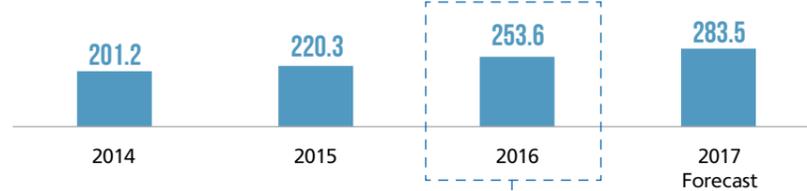
EMPS	AVAILABILITY OF OHSAS 18001 CERTIFICATE
PJSC ZiO Podolsk / JSC ZIOMAR EC	YES
JSC SNIIP	YES
JSC VNIAM	YES

GRI 403-4

The health and safety of industry employees, labor protection, social protection, physical culture, health care, and educational work are also regulated by the Industry Agreement (see Section 7.2) as well as

stipulated in collective agreements of the enterprises of the Division. The cost of labor protection increases annually: by 15% in 2016 as compared to 2015.

Occupational safety and health expenditures, million rubles

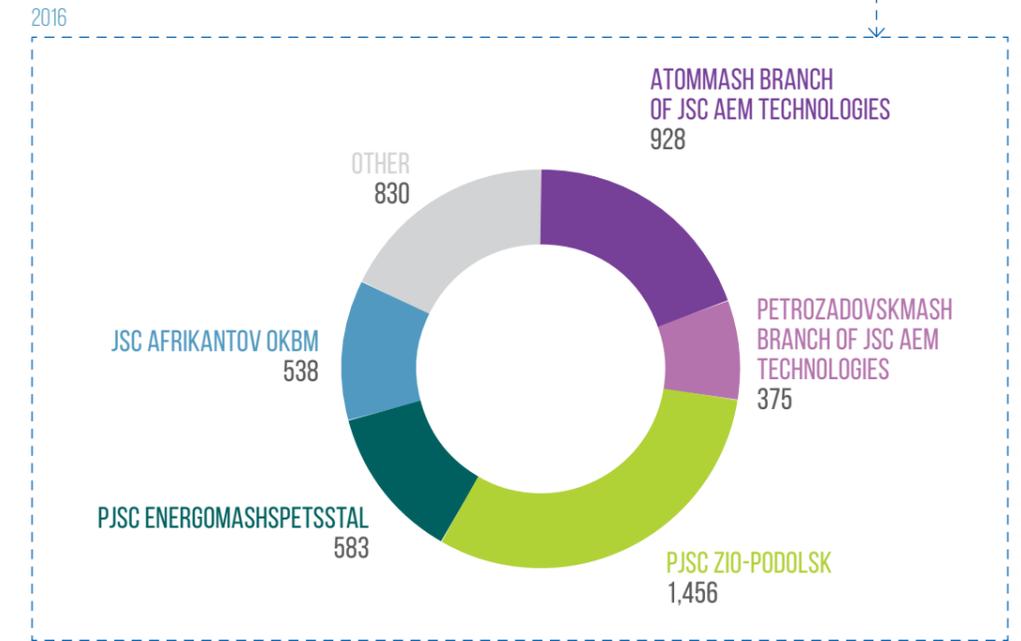
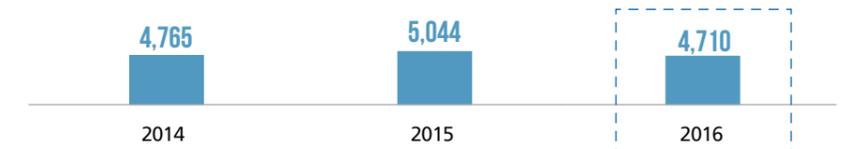


All the employees who work under harmful conditions (4,710 persons) regularly undergo periodic

medical examinations and are also entitled to out-of-turn medical examinations (check-ups).

GRI 403-3

Number of employees working under harmful conditions (persons)



7.4. MANAGING THE PERFORMANCE OF STAFF

GRI 404-3

The Division has adopted a unified policy for personnel performance management, which includes the following:

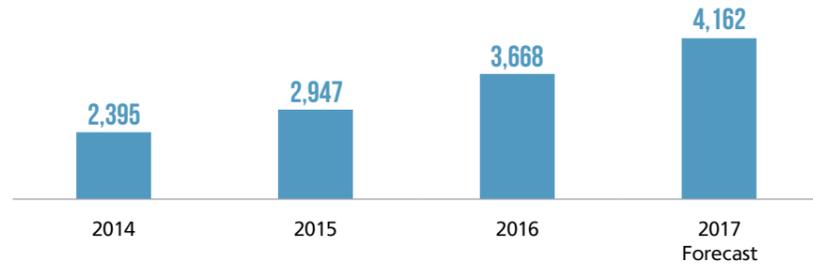
- establishing common principles and tools for setting KPIs and assessing their achievement by employees;
- evaluating the skill level of employees, including in order to ensure effective remuneration of employees ;

- preparing recommendations for the skill pool;
- compiling individual employee development plans for the subsequent planning of training.

The main indicator of personnel performance is labor productivity, which has been recently demonstrating a steady growth.

32 Performance reviews are conducted for all employees of the Division's enterprises

Labor productivity within the Division (thousand rubles / person per year)



An employee engagement survey is an important aspect for ensuring personnel efficiency. The survey provides information to the Company's management about the extent to which employees are committed to accomplishing priority tasks and about the key drivers for increasing engagement and motivation.

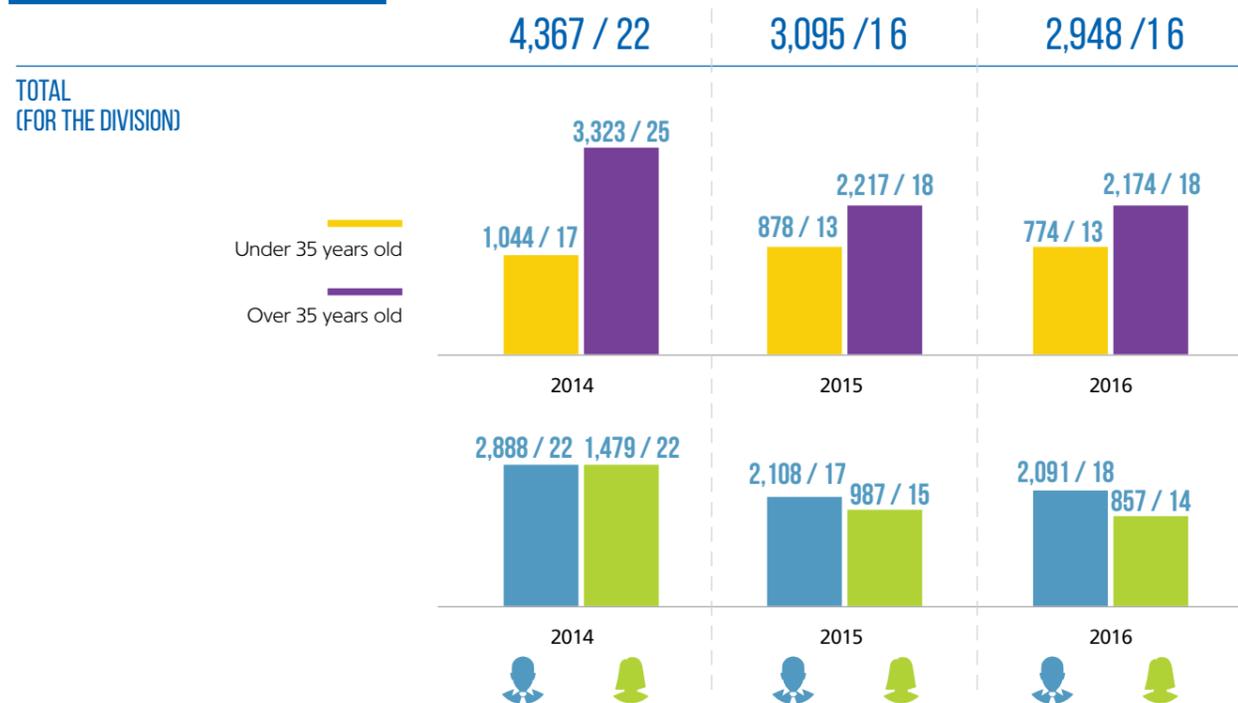
In 2017, an annual engagement survey was conducted among the Division's employees. Average engagement level in the Division amounted to 80% based on the study results. The Division's results were at the level of the industry's figures and above the average for Russian employers.

7.5. AVAILABILITY OF REPLACEMENT PERSONNEL

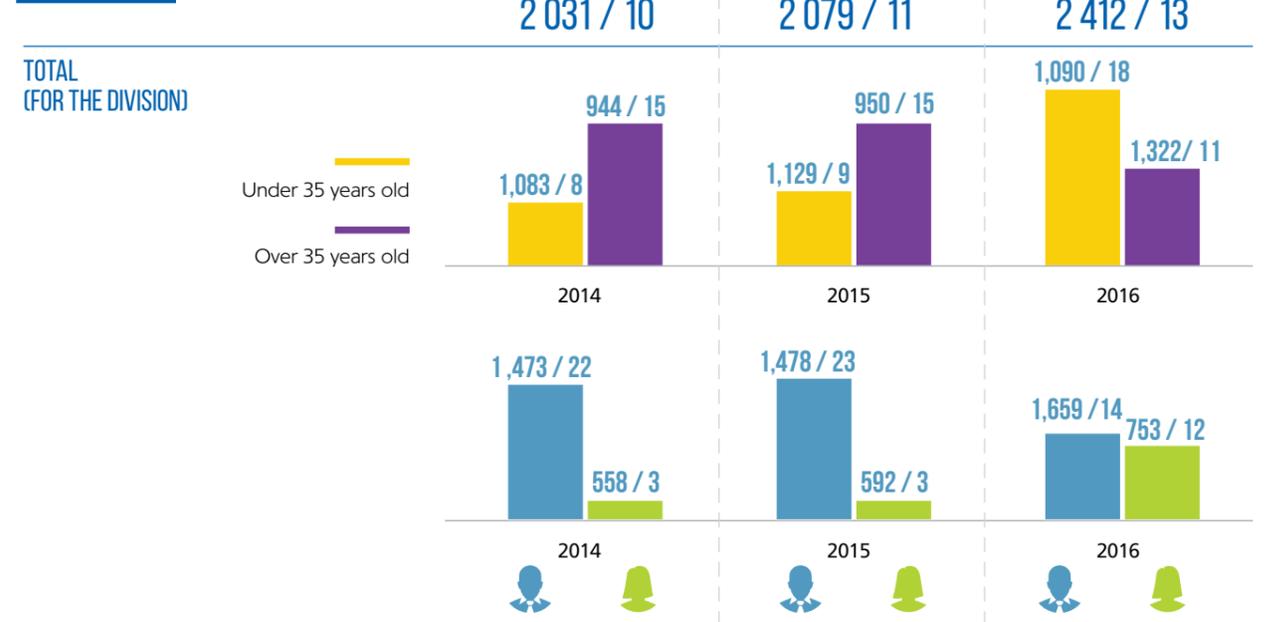
Personnel turnover is inevitable in any company. The Division's enterprises have no cyclic fluctuations in personnel numbers (seasonal etc.), and changes in these numbers are due to headcount optimization

measures or voluntary resignation of employees. The average turnover by the Division in 2016 remained at the level of the previous year (16%), while the turnover of employees under 35 was only 13%.

GRI 401-1 Personnel turnover (persons / %)



Share of newly hired employees (persons / %)



JSC Atomenergomash celebrated its 10th anniversary in 2016. Many employees of the Company have worked at the enterprises of the Division

for more than 10 years (more than 40% of the personnel).

Staff structure in terms of experience (%)



Professional growth of employees is the key to dynamic development and competitive advantage of the Division.

CASE

OF JSC ATOMENERGOMASH: COMBINATION OF SKILLS AND HIGH TECHNOLOGIES

Having won six gold, two silver, and two bronze medals in ten categories, Rosatom's team won the III national championship of end-to-end working professions of high-tech industries, which was held in Yekaterinburg from October 30 to November 3. Employees of the enterprises of the Division were winners and prizetakers in four categories, including the best welder Dmitry Kucheryavin, who was the absolute champion of Worldskills Hi-Tech 2016 in the individual competition.

The enterprises play an active role in the programs for the development of corporate competencies and management skills. Great attention is paid to helping new employees to adapt and provide them with the

key knowledge from experienced tutors in order to accelerate delivery of results by the employees and to preserve all important and valuable knowledge in the Division.

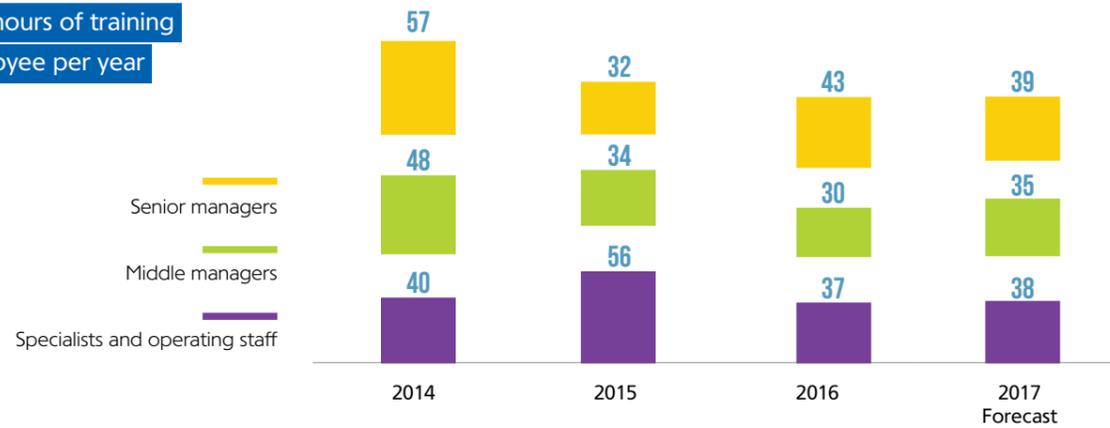
CASE

OF JSC AFRINKANTOV OKBM: GOLD RESERVE

The School of a Future Leader of JSC Afrikantov OKBM graduated its first specialists. For three years, 23 young employees of the enterprise who were winners of internal and sector professional competitions were trained. The School's task is to form a personnel reserve prepared for the management work. For this purpose, a special program was developed, which includes the study of various aspects and tools of management activity. The students got acquainted with leadership styles, learned how to create a professional team aimed at the result, how to competently build relationships between the leader and subordinates, how to avoid conflicts in the team, and much more.

The organizers are sure that the project is in for a great future. Now, the second group of the School of a Future Leader is being completed.

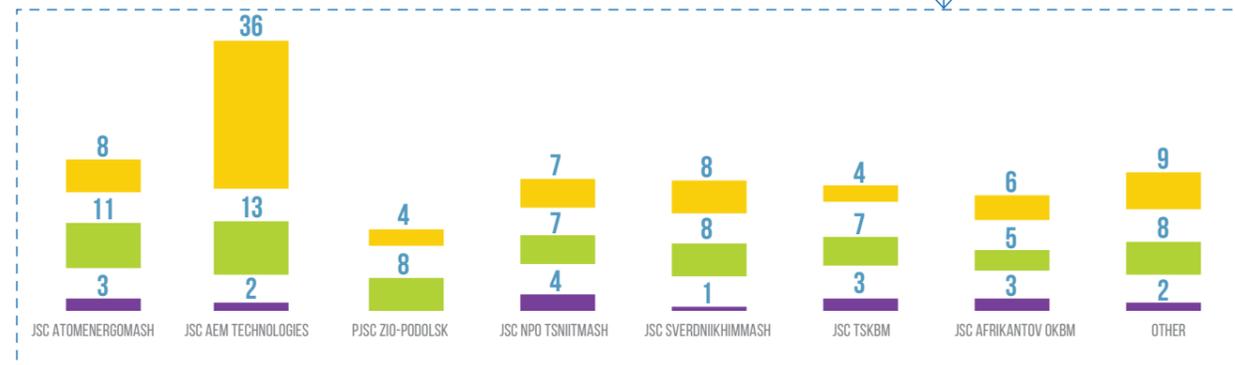
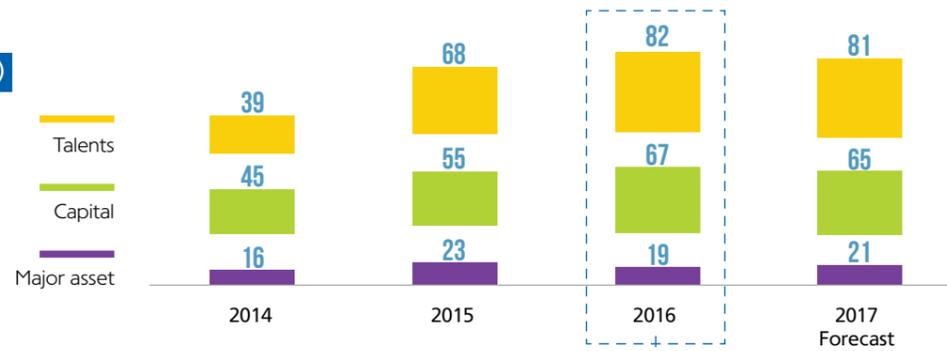
GRI 404-1
Average hours of training per employee per year



In 2016, the skill pool for employees of enterprises from all levels continued to operate at the Division;

professional development and training programs are being implemented.

Number of employees in the skill pool (persons)



In 2016, 60% of the Top 1000 appointments were made from the skill pool (as compared to 52% for 2015).

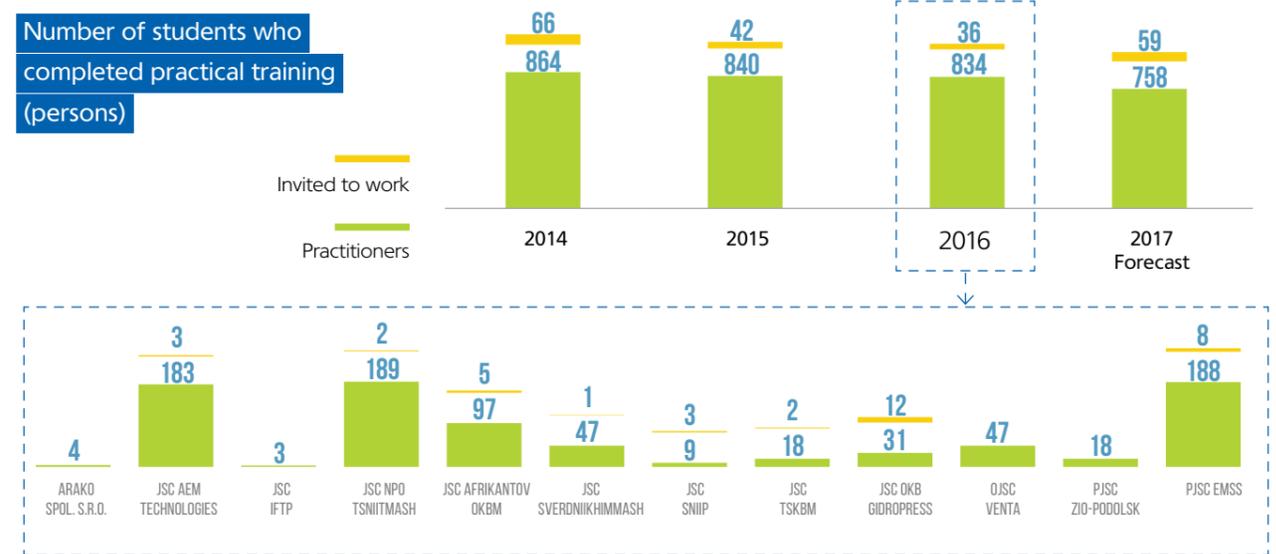
JSC Atomenergomash and the enterprises of the Division maintain constant interaction with all stakeholders, such as educational institutions, training centers at enterprises etc., as part of accomplishing the task of securing qualified personnel.

To control the university training programs and consider the needs of the Division to the maximum extent possible, active work is conducted to integrate vocational education and production. This objective lies at the core of creating and opening

basic departments and branches of departments from leading Russian technical universities (National Research Nuclear University MEPhI, MSTU STANKIN, Bauman Moscow State Technical University, Nizhny Novgorod Alekseev State Technical University, Ural Federal University named after Boris Yeltsin) at the enterprises as well as organizing excursions, training and internships for students as part of strategic cooperation.

The Division's enterprises annually provide on-the-job training for more than 800 senior students of secondary and higher vocational education institutions; the best students are offered

Number of students who completed practical training (persons)



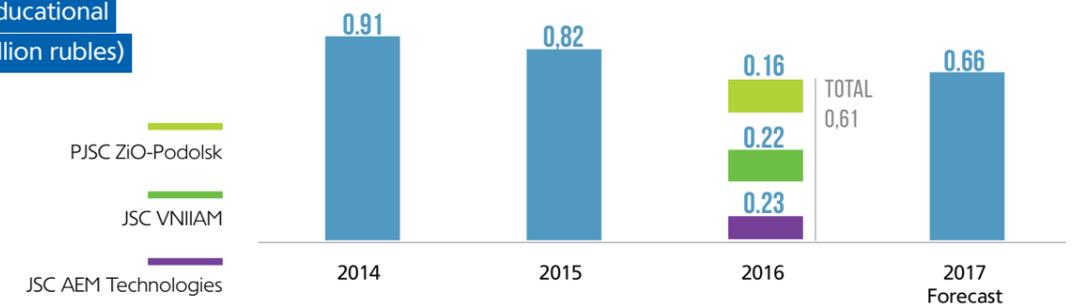
CASE

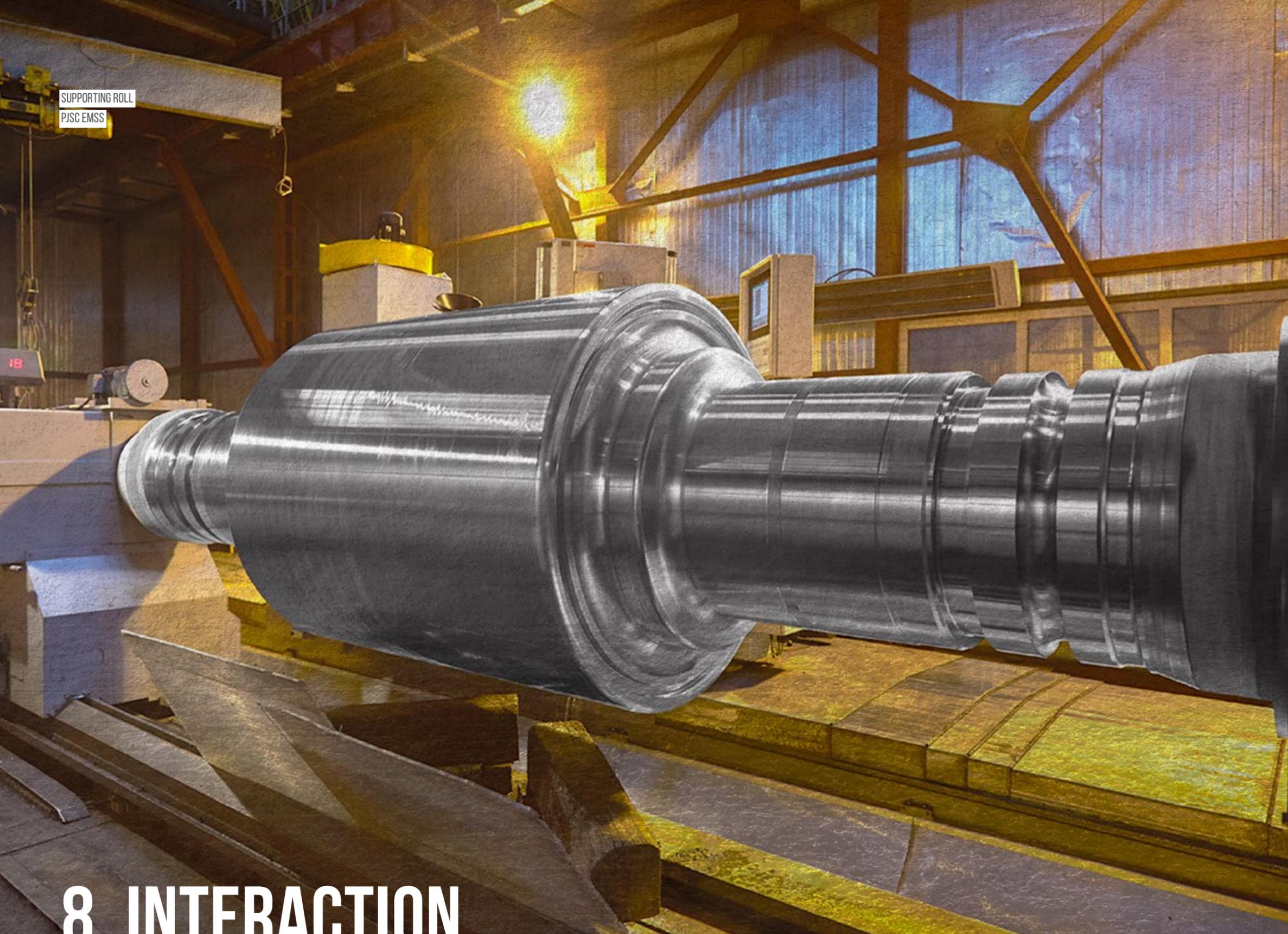
OF JSC AEM TECHNOLOGIES: PRACTICAL TRAINING OF FOREIGN STUDENTS

In the Volgodonsk branch of JSC AEM Technologies, the first foreign students (Vietnamese citizens who study at the Obninsk Institute of the NNIU of MEPhI) passed practical training as part of the Resource Center creation.

The Resource Center is a project created on the basis of the NNIU of MEPhI, the Atomash production site, and the Rostov NPP. It allows students to gain practical knowledge and skills, to visit several industrial enterprises, and to familiarize themselves with the manufacture and the operation of nuclear equipment as early as in their training period. For foreign students, Volgodonsk NNIU of MEPhI has developed a special teaching methodology, according to which teaching is carried out directly at a production site or at an operating nuclear power plant.

Financing of educational institutions (million rubles)





8.1. SOCIAL INVESTMENTS AND CHARITY

The enterprises of the Division are located in different regions of the Russian Federation and Central European countries. In this regard, positioning in the regions plays an important role for the Company and this primarily concerns interaction with local companies and specialists.

8. INTERACTION WITH SOCIETY

POSITIONING IN THE REGIONS INTERACTION WITH LOCAL COMPANIES AND SPECIALISTS PLAYS AN IMPORTANT ROLE FOR THE COMPANY

GRI 204-1

In their activities, the Division's enterprises engage local suppliers on a general basis, which is due to the fact that it is impossible to establish any preferences which are not provided for in the current legislation of the Russian Federation, in particular, based on geographical distribution (refer to section 4.4).

JSC Atomenergomash is committed to the principles of socially responsible business and sees the creation of new workplaces, both in the locations where it maintains a presence and those where their suppliers and contractors operate, as one of its main objectives in this area. The introduced unified system of labor remuneration guarantees stability and a decent level of wages for employees as well as the timeliness of payments. Development of social programs and active cooperation with regional management on labor market issues help to increase the attractiveness of the Company for employees and reduce social tension in the regions.

GRI 202-2

In making hiring decisions, the Company is governed by applicable provisions of Article 64 of the Labor Code of the Russian Federation, which prohibits groundless rejection or refusal based on discriminatory grounds. The Company does not have a formalized policy of recruiting local staff: in recruiting personnel, the Company first of all looks at the level of qualification and, if necessary, practicality of staffing from other regions. At the key regional enterprises, the senior management positions are mainly occupied by representatives of the local community.

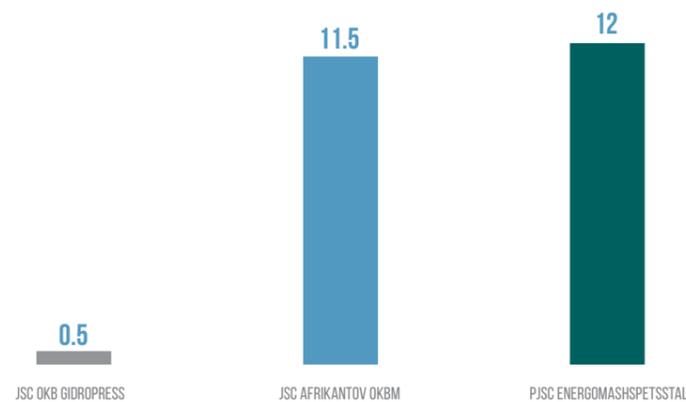
Regional enterprises of the Division participate in the improvement and development of infrastructure in the regions where they operate, especially in towns and cities. In addition, the Company participates in charitable projects. In general, enterprises of the Division spent 24 million rubles on charitable projects in 2016.

One of the Company's most important tasks is implementing the corporate social program in terms of welfare assistance to retired pensioners and

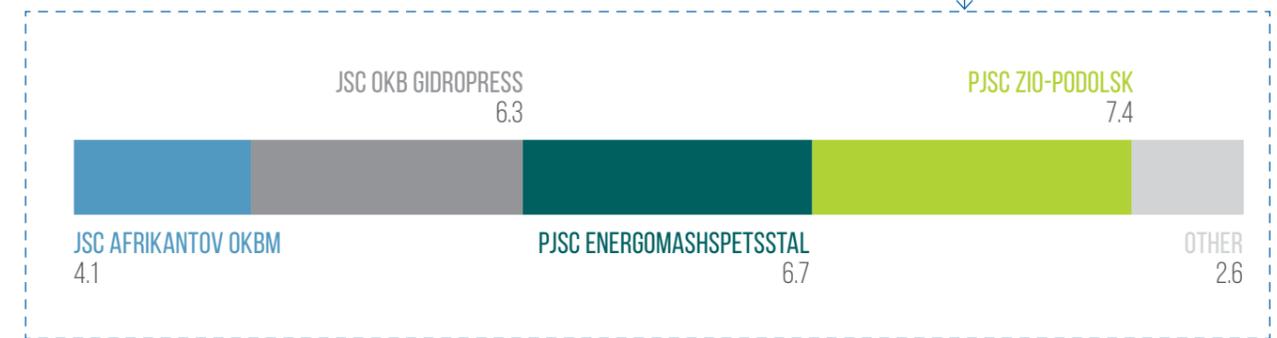
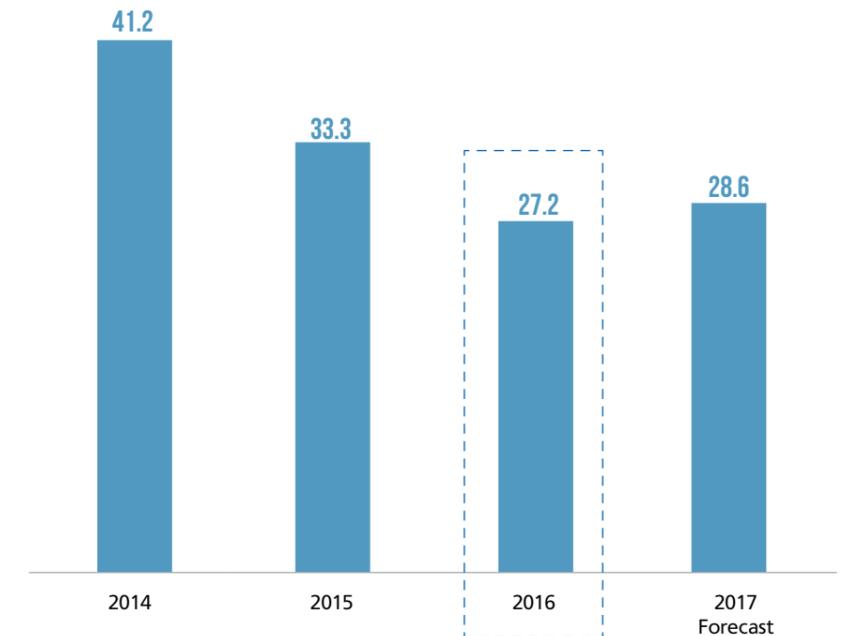
veterans of the enterprises: the Company spent more than 27 million rubles to this end in 2016.

GRI 203-1

Charity expenses (million rubles)



Amount of social support to industry veterans (million rubles)



CASE 

OF PJSC EMSS: EXCURSION TO THE ECOPARK

The Division's enterprises try to participate in social and charity projects. An excursion trip to the Kharkov «Feldman Eco-Park» for the children of boarding school No. 3 is just such an event. The Eco-Park struck the children with its extraordinary beauty. Students were greeted very cordially and treated with kulesh and hot tea. In the zoo, which is also located there, the children saw live tigers, lions, wolves, camels, and rare birds. At the end of the walk through the park, children were led to the stables, where they were allowed to ride horses of different lears and breeds. After the tour, young travelers were ate delicious lunch and received gifts. This trip brought bright emotions and delight to children.

GRI 202-1

A number of key enterprises of the Division that participate in the Industry Agreement meet the requirement to ensure that the monthly salary based on the minimum position level is not below the subsistence level for the working population in the constituent entities of the Russian Federation. In 2016, all the enterprises of the Division fulfilled this requirement.

In addition, enterprises of the Division make annual tax payments to the budgets of various levels; four enterprises of the Division are included in the list of the largest taxpayers in their respective regions: JSC OKB GIDROPRESS, JSC Afrinkantov OKBM, JSC AEM Technologies, and PJSC ZiO-Podolsk.

33 Local employees are those who live permanently in the area where the employer enterprise operates, i.e. not hired from other regions.

Payments to the budgets of different levels, thousand rubles

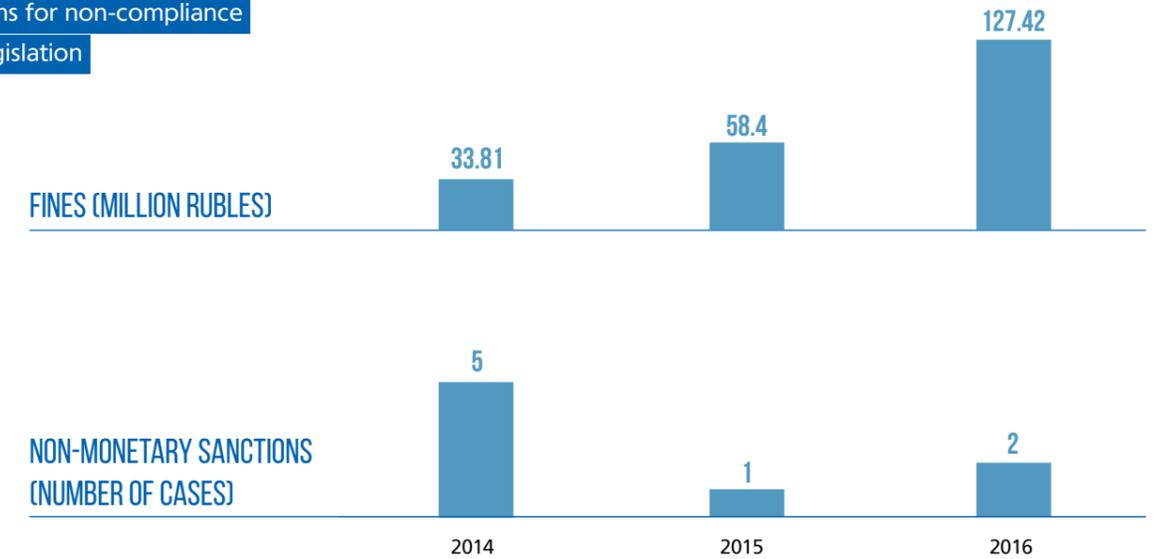


8.2. COMPLIANCE WITH APPLICABLE LAWS

One of the key priorities of the Company's activities is its unconditional compliance with legislation and adherence to high standards of

business ethics. Therefore, an important task is to reduce the number and the severity of cases of non-compliance with the legislation.

GRI 419-1
Penalties and non-monetary sanctions for non-compliance with legislation



CASE



OF JSC ATOMENERGOMASH:
THE BEST LAWYER IN
RUSSIA

On October 3, 2016, the Kommersant newspaper published a rating of «TOP-50» directors of legal issues in various business sectors. In the direction of «Mechanical Engineering,» Oksana Mazunina, the head of the Legal Department of JSC Atomenergomash, was the undisputed leader. Such a high evaluation of her work is not surprising: the structure and the functionality of the Legal Department was formed from scratch in several years, and the basic business processes were developed, regulated, and replicated.



RESOURCE TEST OF MCPU
JSC TSKKB

9. COMMUNICATION ACTIVITIES

MARKETING COMMUNICATIONS,
INCLUDING PROMOTION
ACTIVITIES AND ADVERTISING,
ARE AN IMPORTANT AREA
OF THE ACTIVITIES OF JSC
ATOMENERGOMASH

9.1. EXTERNAL COMMUNICATIONS AND CORPORATE BRANDING

GRI 102-43, 417-3

Marketing communications, including promotion activities, advertising, participation in exhibitions etc., are an important area of the activities of JSC Atomenergomash. JSC Atomenergomash and the enterprises of the Division took part in 22 conference and exhibition events (including 8 events that were held abroad). The Division had a booth at five of them:

- The NDExpo 2016 International Forum: «High Technologies for Sustainable Development» (Moscow, Russia, April 5–7);
- International Forum «ATOMEXPO 2016» (Moscow, Russia, June 30–July 1);
- The 15th Kazakhstan International Exhibition and Forum of Power Engineering «Power, Electrical Engineering, and Power Engineering» - Power Kazakhstan 2016 (Almaty, Kazakhstan, October 25–27);
- POWER-GEN Russia 2016 (Moscow, Russia, October 25–27);
- Forum of Nuclear Industry Suppliers «ATOMEX 2016» (Moscow, Russia, October 19–20).

In 2016, a number of events were organized as part of the marketing activities: seven press tours, including PR activities for foreign journalists and representatives of countries that are potential customers for the Division's products.

CASE 

CASE OF JSC AEM TECHNOLOGIES: THE PROGRAM OF INFORMATION SUPPORT OF PRODUCTION AND SHIPMENT OF THE REACTOR VESSEL FOR THE POWER UNIT NO. 2 OF THE BELARUSIAN NPP

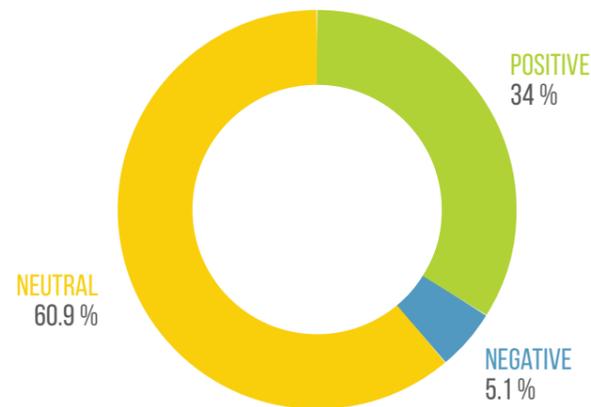
One of the major industrial developments in 2016 was the shipment of the reactor for the power unit No. 2 of the Belarusian Nuclear Power Plant from the production site of the Atomash branch of JSC AEM Technologies in Volgodonsk was widely covered by both federal and regional mass media as well as by top bloggers. Thanks to the active work of PR specialists, in total, about 200 publications were published, which included stories on the following television channels: Russia-1, Russia-24, LifeNews, Zvezda, and others. The coverage of posts in social networks was more than 100 thousand people.

In comparison with its competitors in 2016, the Division was more often mentioned in the media, and more than a third of mentions were positive ones.

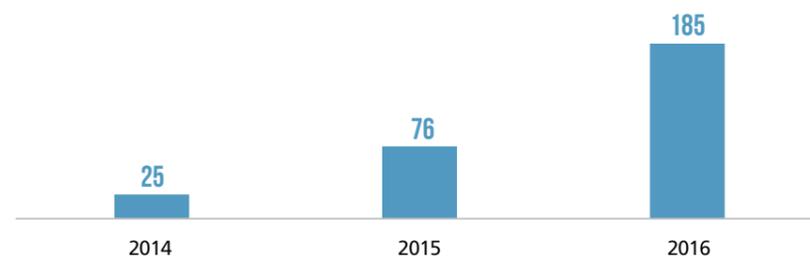
Mentions in the media (thousand cases)



Mentions in the media (%)



Website Traffic (thous. unique visits per month)



«10 YEARS OF PROGRESS» INTERACTIVE PORTAL ON THE OFFICIAL WEBSITE

In the year of the tenth anniversary of the Company, an interactive section dedicated to this event was launched on the website, including an interactive start page with the company's video and

chronicle, the AEM Guide, in an entertaining manner, telling about the geography of the Company's presence, and interactive gaming applications: Atomic memo, Atomic alphabet, Atomic puzzles.

CASE 

OF JSC ATOMENERGOMASH: SILVER THREADS

On December 8–10, 2016, in Moscow, the VI National Corporate Media Conference «Silver Threads 2016» was held. During the event, the results of the National Competition of Corporate Media Resources were summed up. The anniversary section of the official website of JSC Atomenergomash received a grand prix in the category «The Best Fuel and Energy Complex Corporate Website.» In addition, Vestnik AEM, the corporate newspaper of the JSC Atomenergomash group, entered the short list of the best corporate media and received a diploma in the category «A High Level of Solving Corporate Tasks.».

«THE RUSSIAN ATOM. WONDERFUL MACHINES» MOVIE

In 2016, the popular science movie called «The Russian Atom. Wonderful Machines» on the production of key reactor equipment for nuclear power and ice-breaking fleet, including video graphics and original surveys at the enterprises of

the Division, was prepared with the participation of the Company's specialists. The film was broadcast on the TV channels of «Public Russian Television» and «Techno-24» and was posted on social networks (more than 50 thousand views).

9.2. INTERNAL COMMUNICATIONS

A key challenge in the area of internal communications in 2016 was to increase the EMP employees' awareness of activities of JSC Atomenergomash. Corporate media published a series of interviews with managers of business areas, in which the speakers told

the readers about the strategic goals and objectives, major achievements, and bottlenecks in these areas.

JSC Atomenergomash and key EMPs implemented the following corporate communications development projects:

CORPORATE NEWSPAPER «AEM BULLETIN»

As part of supporting a common information environment for the Division, the monthly corporate newspaper AEM Bulletin is published in three languages (Russian, Czech, Hungarian) in four countries: In 2016, continuous updating of a complete online version of the corporate newspaper was implement-

ed at the following URL: <http://vestnik-aem.ru>. Vestnik Online is an information resource that is aimed at expanding the audience of the paper version through the modern presentation of information and unique content that was not included in the printed version as well as the openness of the resource.

INDUSTRY TV PROJECT «THE ROSATOM COUNTRY»

In order to maintain a favorable reputation of its enterprises in the cities of presence and to inform the general public about the key projects, JSC Atomenergomash joined the industry project of broadcasting an information and analytical TV program called «The Rosatom Country.» In 2016, the news block of the Division included stories prepared by the follow-

ing EMPs: Atomash and Petrozavodskmash branches of JSC AEM Technologies, JSC SverdNIIkhimmash, PJSC ZIO-Podolsk, JSC Afrinkantov OKBM, JSC NPO TsNIITMASH, and JSC SNIIP (overall, more than 100 TV clips about the work of the Division's enterprises were televised).

AWARENESS DAYS

Following the traditional practice of Rosatom State Corporation, meetings between the Company's management and employees are held regularly in the format of Awareness Days aimed at not only conveying

important information about the Company to employees but also arranging dialogue between personnel and management. For example, two Information Days were held in 2016 at Rosatom State Corporation.

APPENDICES

APPENDIX 1. GLOSSARY

ABBREVIATIONS USED IN THE REPORT

NPP	nuclear power plant	RPS	Rosatom Production System
CAM	automated project management system	RAW	radioactive waste
FNR	fast-neutron reactor	IP	intellectual property
VVER	water-water power reactor	RU	reactor unit
SSC	State Scientific Center	BoD	board of directors
GRES	State district power plant	RUMCS	reactor unit monitoring and control system
MCPU	main circulating pump unit	QMS	quality management system
MCP	main circulation piping	JV	joint venture
HPS	hydroelectric power plant	AFCF	adjusted free cash flow
KPI	key performance indicator	SUZ- ShEM	control and protection system solenoid stepper drive
SMWI	statutory minimum wage index	SCSP	supercritical steam parameters
SMB	small and medium-sized business	TMES	transport and marine energy solutions
OR	oil refinery	TP	transport packaging
RC	oil refinery company	TPP	thermal power plant
EMPs	entities included in the Company's management perimeter	CHPP	combined heat and power plant
FNPP	floating nuclear power plant	NSSS	nuclear steam supply system
GSM	General Shareholder Meeting	INES	international nuclear event scale
SNF	spent nuclear fuel	LCOE	levelized cost of energy
FNPP	floating nuclear power plant	LTIFR	lost time injury frequency rate
SG	vertical-type steam generator		
CCGT	combined cycle gas turbine power plant		

TERMS USED IN THE REPORT

INES is an international scale of nuclear events that assesses all non-standard events at nuclear facilities using an 8-point scale.

LCOE is the average estimated cost of electricity production throughout the lifetime of a power plant (including all possible investments, costs, and revenues).

LTIFR – lost time injury frequency rate.

Topic – a topic that describes one of the Company's activity areas or its impact on stakeholders.

Employee engagement – an emotional and intellectual state that motivates employees to do their job efficiently.

Input control: the control of the quality and the completeness of products received at the Nuclear Power Plant site and intended for use in the course of its construction and operation.

Senior management (top management) – Company employees who adopt decisions having a significant effect on the Company's activities as a whole (from the functional directors' level up to the CEO).

Integrated additional incentive (SRI): a part of the wages paid to the employee on a monthly basis for the level of competence, professionalism, and labor productivity which is defined on the basis of efficacy and potential (the RECORD score or the professional worker status assessment procedure).

Combined revenue – a total revenue of the companies included in the combined accounting statements perimeter in accordance with a company approved procedure, net of revenue from intra-group sales and other adjustments.

Local employees/managers – employees who live permanently in the area where the employer enterprise operates.

Statutory Minimum Wage Index is the minimum monthly wage established by the current federal law.

AFCF – a key performance indicator for operations of Rosatom State Corporation; a cash flow from operating activities adjusted for non-cash items. It characterizes the dynamics of the cash flows available for development.

Stakeholder (interested party) – an individual, group of individuals or an organization that is influenced by or can exert an impact on the company.

Significant operating regions: regions in which an enterprise's production facilities and key personnel are located.

Material aspect: an aspect reflecting a significant area of the Company's activities or a significant impact on stakeholders.

APPENDIX 2. INFORMATION ABOUT THE REPORT

GRI 102-50

In accordance with the current legislation of the Russian Federation, the Atomenergomash Annual Reporting Standards, and the GRI Sustainability Reporting Standards (hereinafter referred to as GRI SRS, version 2016), JSC Atomenergomash issues this Integrated Annual Report (Report) disclosing key indicators of activity of the Machine Engineering Division of Rosatom State Corporation for the period from January 1, 2016 to December 31, 2016 and long-term development prospects.

GRI 102-51, 102-52

JSC Atomenergomash traditionally follows an annual reporting cycle; the previous Report covering the results for the 2015 reporting year was released in 2016.

GRI 102-12

The Report was prepared meeting the requirements of the following regulatory documents (as amended):

- the Federal Law No. 208-FZ dated December 26, 1995 "On Joint Stock Companies";
- Order of Rosatom State Corporation dated November 11, 2015 and registered under No. 1 / 1069-P «On Amendments to the Policy of Rosatom State Corporation in the Field of Public Accounting»;
- Regulation of the Bank of Russia dated December 30, 2014 and registered under No. 454-P "On Disclosure of Information by Issuers of Equity Securities";
- Letter of the Bank of Russia dated April 10, 2014 and registered under No. 06-52/2463
- "On the Corporate Governance Code";
- the Accountability's AA1000 Series Standards;
- Sustainability Reporting Standards of the Global Reporting Initiative (GRI Standards, SRS);
- the International Integrated Reporting Framework (IIRC);

The Company has approved internal documents: Standard and Regulation for Annual Public Reporting amended by the Order of the Chief Executive Officer of the Company dated April 26, 2017 and registered under No. 33 / 135-P. These documents establish the

GRI 102-47

procedure for the preparation of a Public Report and the responsibility of the participants in this process as well as requirements for a Public Report, including the System of Categorized Performance Indicators of JSC Atomenergomash.

GRI 102-43

The Company's Strategic Development Department (the Strategy Directorate) is responsible for preparing the Report. The Public Reporting Committee (chaired by the Director of the Strategic Development Department), the main responsibility of which is to coordinate the preparation of the Report and assess the materiality and completeness of the information disclosed in the Report, takes part in all key stages of the Report preparation.

GRI 102-40, 102-42, 102-46

The Company considers stakeholder engagement as one of the fundamental factors of sustainable development and consistently develops productive cooperation in this field together with the enterprises of the Division. This work involves the following tasks:

- analysis of the mutual influence of the Company and the stakeholders in various aspects of operations;
- identifying stakeholder expectations and aspirations;
- responding to the expectations of stakeholders and searching for a consensus on problematic issues;
- establishing long-term partnerships with key stakeholders.

In accordance with the stakeholder interaction pattern, the Company held public dialogues in a correspondence format. Thus, at the beginning of the reporting campaign, a distance survey was conducted among stakeholders to assess materiality; concepts of the Report, which included the survey results, a list of indicators, and the main points of emphasis, were approved (September 26, 2016–November 14, 2016). Public consultations for the draft Report, which were held in absentia (April 19, 2017–April 26, 2017), summed up the results of interaction in the framework of preparation of the Report and identified a number of areas for improvement in future reporting campaigns. Based on the results of this work, stakeholders performed public assurance of the Report.

Material Aspects and Their Boundaries

№	ASPECT	№	ASPECT
1	Economic performance and financial position*	14	Environmental management*
2	Market presence	15	Personnel Composition*
3	Commercial activities	16	Labor Conditions and Organization*
4	Investment activities	17	Occupational Health and Safety*
5	Results of production activities	18	Managing the performance of staff
6	Quality and Safety*	19	Availability of Replacement Personnel*
7	Optimization of production activities	20	Impact on Presence Regions*
8	Procurement activities*	21	Social Investments and Charity*
9	Innovation development	22	Anti-corruption Practices*
10	Scientific activities	23	Compliance with Legislation*
11	Energy Consumption*	24	Marketing and PR Communications*
12	Water Consumption*	25	Activities of corporate governance bodies
13	Emissions and Wastes*	26	Internal Control, Audit and Risk Management

* GRI aspects

GRI 102-48

There were no restatements of information compared with the previous year.

GRI 102-10, 102-45, 102-49, 103-1

The boundaries of each material aspect were determined by a survey among the members of the Public Reporting Committee of JSC

Atomenergomash. The coverage of key EMPs was changed due to changes in the structure of the Division in 2016: JSC GSPI and LLC EMCO were excluded from the consolidation profile while Ganz EEM LLC was included in the consolidation profile of the Division because it became a wholly owned subsidiary of JSC Atomenergomash.

DISCLAIMER

This Report contains a number of forward-looking statements concerning the future state of the Company in terms of various topics, its plans and expected results. By nature, forward-looking statements involve inherent risk and uncertainties. A range of economic, political, social, and other stochastic factors may influence the Company's activities and its external environment. In this regard, the Company points out that actual results may differ from those expressed, directly or indirectly, in the forward-looking statements contained within the Report.

Boundaries of material aspects

COMPANY	ASPECTS																								
	1	2	3	4	5	6	7	8	9	10	13	14	15	16	17	18	19	20	22	23	24	25			
LLC AAEM		+	+	+	+	+						+	+	+	+	+	+	+	+	+	+	+	+		
ARAKO	+	+	+	+	+	+	+	+			+		+	+		+	+	+	+	+	+	+	+		
CJSC ATM	+	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	+		
JSC Atomenergomash	+	+	+	+	+	+	+	+		+		+	+		+	+	+	+	+	+	+	+	+		
JSC AEM Technologies	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
LLC PZM LZ				+		+							+	+	+	+	+	+	+	+	+	+	+		
OJSC Venta	+	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	+		
JSC VNIAM	+	+	+		+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	+		
JSC OKB Hidropress	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Ganz EEM	+	+	+		+	+		+			+	+	+	+		+	+	+	+	+	+	+	+		

COMPANY	ASPECTS																								
	1	2	3	4	5	6	7	8	9	10	13	14	15	16	17	18	19	20	22	23	24	25			
PJSC ZiO-Podolsk	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
JSC ZIOMAR EC	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
JSC IFTP			+		+					+	+	+	+	+	+	+	+	+	+	+	+	+	+		
JSC OZTMITS	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+		
JSC Afrikantov OKBM	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
CJSC REMKO	+	+						+					+	+	+	+	+	+	+	+	+	+	+		
JSC SNIIP	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
JSC SverdNIKhimmash	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
JSC TsKBM	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
JSC NPO TsNIITMASH	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
PJSC ENERGO MASH SPETSSTAL	+	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	+		

APPENDIX 3. GRI SRS CONTENT INDICATOR

GRI 102-54, 102-55

The report is prepared in accordance with the GRI Standards, the main variant.

№ n/n	REPORTING ELEMENT		EXCLUDED INFORMATION	PAGE
	REPORT SECTION			
GRI 102. COMMON ELEMENTS (2016)				
1.	102-1	The Company in Brief		7
2.	102-2	1.1. Business Model		19
3.	102-3	Contact information		112
4.	102-4	1.1. Business Model		21
5.	102-5	The Company in Brief		7
6.	102-6	1.1. Business Model		19
7.	102-7	The Company in Brief 1.1. Business Model 2.1. Corporate Governance System 7.1. Personnel Composition		8, 21, 33, 75
8.	102-8	7.1. Personnel Composition	A breakdown by labor agreement type and employment type is not provided because such records are not kept.	75
9.	102-9	4.4. Procurement Activities		57
10.	102-10	2.1.	Corporate Governance System	32, 57, 99
11.	102-11	4.4. Procurement Activities		i
12.	102-12	Appendix 2. Information about the Report		98

№ n/n	REPORTING ELEMENT		EXCLUDED INFORMATION	PAGE
	REPORT SECTION			
13.	102-13	2.4. Risk Management		i
14.	102-14	Appendix 2. Information about the Report		10
15.	102-16	7.2. Labor Conditions and Organization		32, i
16.	102-17	Message from Company Management		37
17.	102-18	2.1. Corporate Governance System		32, i
18.	102-19	2.2. Ethics and Anti-corruption Practices		34
19.	102-20	2.1. Corporate Governance System		35, i
20.	102-22	2.1. Corporate Governance System		33
21.	102-23	2.1. Corporate Governance System		33
22.	102-24	2.1. Corporate Governance System		i
23.	102-25	2.1. Corporate Governance System		i
24.	102-26	2.1. Corporate Governance System		34, i
25.	102-32	2.1. Corporate Governance System		i
26.	102-33	2.1. Corporate Governance System		34, i
27.	102-34	Appendix 2. Information about the Report		34
28.	102-36	2.1. Corporate Governance System		34, 35, i
29.	102-40	2.1. Corporate Governance System		98
30.	102-41	2.1. Corporate Governance System		78, i
31.	102-42	Appendix 2. Information about the Report		98
32.	102-43	7.2. Labor Conditions and Organization		93, 98
33.	102-44	Appendix 2. Information about the Report		110
34.	102-45	9.1. External communications and corporate branding		99, i
35.	102-46	Appendix 2. Information about the Report		98, i
36.	102-47	Appendix 10. Consideration of Stakeholder Opinions		99, i
37.	102-48	Appendix 2. Information about the Report		99
38.	102-49	Appendix 7. Report on Analysis of Combined Financial Statements		99
39.	102-50	Appendix 2. Information about the Report		98
40.	102-51	Appendix 2. Information about the Report		98
41.	102-52	Appendix 2. Information about the Report		98
42.	102-53	Appendix 2. Information about the Report		112
43.	102-54	Appendix 2. Information about the Report		100, 107
44.	102-55	Appendix 2. Information about the Report		100
45.	102-56	Appendix 2. Information about the Report		i

№ n/n	REPORTING ELEMENT	REPORT SECTION	EXCLUDED INFORMATION	PAGE
GRI 103. MANAGEMENT APPROACHES (2016)³⁴				
46.	103-1	Appendix 3. GRI SRS content indicator		99, 104
	103-2	Appendix 8. Non-Financial Assurance Report		104
	103-3	Appendix 3. GRI SRS indicator		34, 37, 104, i
47.	201-4	Appendix 2. Information about the Report		32, 46
GRI 203. ECONOMIC PERFORMANCE (2016)				
48.	203-1	8.1. Social investments and charity		88
GRI 204. PROCUREMENT PRACTICES (2016)				
49.	204-1	4.4. Procurement Activities 8.1. Social investments and charity		58, 88
GRI 205. ANTI-CORRUPTION PRACTICES (2016)				
50.	205-3	2.2. Ethics and Anti-Corruption Practices		36
GRI 302. ENERGY (2016)				
51.	302-1	6.1. Environmental management	Total energy consumption is not calculated because accounting systems do not allow eliminating double counting associated with the consumption of energy produced in the Division profile.	68
52.	302-4	6.1. Environmental management		69
GRI 303. WATER (2016)				
53.	303-1	6.1. Environmental management		69
GRI 305. EMISSIONS (2016)				
54.	305-1	6.2. Emissions and Wastes	Data are not converted into CO ₂ equivalent	70
55.	305-6	6.2. Emissions and Wastes	Data are not converted into FCF-11 equivalent	70
56.	305-7	6.2. Emissions and Wastes		71
GRI 306. EMISSIONS AND WASTES (2016)				
57.	306-2	6.2. Emissions and Wastes		72
GRI 307. ENVIRONMENTAL COMPLIANCE (2016)				
58.	307-1	6.1. Environmental management		68

³⁴ References to management approaches specific to relevant topics are provided on page 103

№ n/n	REPORTING ELEMENT	REPORT SECTION	EXCLUDED INFORMATION	PAGE
GRI 401. EMPLOYMENT (2016)				
59.	401-1	7.5. Availability of Replacement Personnel		82
60.	401-2	7.2. Labor Conditions and Organization		79
GRI 402. RELATIONS BETWEEN EMPLOYEES AND THE MANAGEMENT (2016)				
61.	402-1	7.2. Labor Conditions and Organization		i
GRI 403. PERSONNEL HEALTH AND SAFETY (2016)				
62.	403-2	7.3. Occupational Health and Safety	The rate of injuries, the coefficient of missed days, the coefficient of occupational diseases, the absence rate in the workplace, including the same broken down by sex, were not disclosed, as such accounting is not conducted	79
63.	403-3	7.3. Occupational Health and Safety		81
64.	403-4	7.3. Occupational Health and Safety		80
GRI 404. TRAINING AND EDUCATION (2016)				
65.	404-1	7.5. Availability of Replacement Personnel	A breakdown by gender is not provided because such records are not kept.	84
66.	404-3	7.4. Managing the performance of staff		81
GRI 405. DIVERSITY AND EQUAL OPPORTUNITIES (2016)				
67.	405-1	7.1. Personnel Composition	A breakdown by gender is not provided because such records are not kept.	76
GRI 416. CONSUMER'S HEALTH AND SAFETY (2016)				
68.	416-1	4.2. Quality and Industrial Safety		53
69.	416-2	4.2. Quality and Industrial Safety		54
GRI 417. LABELING OF PRODUCTS AND SERVICES (2016)				
70.	417-3	9.1. External communications and corporate branding		93
GRI 419. SOCIO-ECONOMIC COMPLIANCE (2016)				
71.	419-1	2.2. Ethics and Anti-corruption Practices 8.2. Compliance with Applicable Laws		36, 90

GRI 103-1, 103-2, 103-3

INFORMATION ABOUT MANAGEMENT APPROACHES

№	ASPECT	REPORT SECTION	PAGE
1	Economic performance and financial position (GRI 201 Economic performance (2016))	3.1. Economic performance and financial position	41
2	Market presence	1.3. Company Position in the Market	23
3	Commercial activities	3.2. Commercial activities	46
4	Investment activities	3.3. Investment activities	48
5	Results of production activities	4.1. Results of production activities	51
6	Quality and safety (GRI 416. Consumer's health and safety (2016))	4.2. Quality and Industrial Safety	53
7	Optimization of production activities	4.3. Optimization of production processes	55
8	Procurement Activities (GRI 204. Procurement practices (2016))	4.4. Procurement Activities	57
9	Innovation development	5.2. Innovation development 5.3. Innovation Management	63, 64
10	Scientific activities	5.1. Scientific activities	61
11	Energy Consumption (GRI 302. Energy (2016))	6.1. Environmental management	67
12	Water Consumption (GRI 303. Water (2016))	6.1. Environmental management	67
13	Emissions and wastes (GRI 305. Emissions (2016), GRI 306. Emissions and wastes (2016))	6.2. Emissions and Wastes	70
14	Environmental Management and Compliance with Environmental Requirements (GRI 307. Environmental compliance (2016))	6.1. Environmental management	67
15	Personnel Composition (GRI 405. Diversity and equal opportunities (2016))	7.1. Personnel Composition	75
16	Labor Conditions and Organization (GRI 402. Relations between employees and management (2016))	7.2. Labor Conditions and Organization	78
17	Occupational Safety and Health (GRI 403) Personnel health and safety (2016))	7.3. Occupational Health and Safety	79
18	Personnel Efficiency	7.4. Managing the performance of staff	81
19	Availability of Replacement Personnel (GRI 401. Employment (2016), GRI 404. Training and education (2016))	7.5. Availability of Replacement Personnel	82
20	Impact on Presence Regions (GRI 203. Indirect economic impacts (2016)):	8.1. Social investments and charity	87
21	Social investments and charity	8.1. Social investments and charity	87
22	Anti-corruption practices (GRI 205. Anti-corruption practices (2016))	2.2. Ethics and Anti-corruption Practices	36
23	Compliance with Applicable Laws (GRI 419. Social and economical compliance (2016))	8.2. Compliance with Legislation	90
24	Marketing and PR Communications (GRI 417. Labeling of products and services (2016))	9.1. External communications and corporate branding	93
25	Activities of corporate governance bodies	2.1. Corporate Governance System	31
26	Internal Control, Audit and Risk Management	2.3. Internal control and audit 2.4. Risk Management	37

APPENDIX 4.

ACCOUNTING STATEMENTS OF JSC ATOMENERGOMASH

INDICATOR DESCRIPTION	CODE	AS OF DECEMBER 31, 2016	AS OF DECEMBER 31, 2015	AS OF DECEMBER 31, 2014
ASSETS				
I. NON-CURRENT ASSETS				
Intangible assets	1110	34,497,655	14,069,248	14,134,043
including business reputation	1111	33,966,715	13,636,533	13,575,350
Results of research and development	1120	395,416	297,505	352,069
Intangible search assets	1130	-	-	-
Tangible search assets	1140	-	-	-
Fixed assets	1150	29,430,915	29,500,909	27,095,964
Buildings, machinery, equipment and other fixed assets	1151	24,119,755	24,858,050	23,851,876
Incomplete capital investments in fixed assets	1152	4,817,016	2,985,687	2,682,555
Advances to suppliers and contractors for capital construction and suppliers of fixed assets	1153	494,144	1,657,168	561,533
Profitable investments in tangible assets	1160	121,006	2,407	691,128
Financial investments	1170	2,984,945	10,218,934	2,939,103
including financial investments in associates	1171	-	68,812	107,705
Deferred tax assets	1180	4,930,254	3,105,041	2,595,692
Other noncurrent assets	1190	5,271,467	7,187,931	13,312,042
Total for Section I	1100	77,631,657	64,381,974	61,120,041
II CURRENT ASSETS				
Stock	1210	25,267,210	21,135,627	20,909,089
inclusive of the following:				
raw materials and other similar assets	1211	7,012,686	7,332,122	8,635,604
expenses in progress	1212	16,656,551	12,164,784	11,064,076
finished products and goods for resale	1213	1,283,651	1,202,768	472,262
shipped goods	1214	314,321	435,954	737,148
other stocks and expenses	1219	-	-	-
VAT on purchased assets	1220	2,495,862	1,319,229	835,333
Accounts receivable	1230	52,111,970	49,154,763	34,626,772
settlements with buyers and customers	1231	24,168,894	22,976,611	18,919,361
advance payments issued	1232	13,397,736	14,170,815	6,216,256
other accounts receivable	1233	1,991,455	3,724,732	3,821,640
accrued revenue not presented for payment	1234	12,553,886	8,282,607	5,669,517
Financial investments (excluding cash equivalents)	1240	9,238,516	4,911,093	41,750,299
Cash and cash equivalents	1250	58,507,220	52,049,358	4,324,725
Other current assets	1260	4,864,436	5,722,213	4,877,563
Total for Section II	1200	152,112,765	134,292,280	107,323,781
BALANCE SHEET	1600	230,116,870	198,674,254	168,443,822
LIABILITIES				
III. EQUITY AND RESERVES				
Authorized capital (joint stock, shareholder equity, contributions of partners)	1310	1,016	1,016	1,016
Authorized capital of the companies, the share in which does not belong to the parent organization	1311	3,400,100	7,301,107	6,152,616
Own shares repurchased from shareholders	1320	-	-	-
Contribution from the shareholders (participants) to the authorized capital before the registration of changes to the constituent documents	1330	33,460,278	5,940,971	59,300
Noncurrent asset revaluation	1340	239,568	244,461	244,904
Additional capital (without revaluation)	1350	26,921,181	23,266,946	22,094,631
Capital surplus	1360	792,070	566,589	485,190
inclusive of the following:				
reserves accumulated in accordance with the current legislation	1361	332,794	141,021	106,383
reserves accumulated pursuant to constituent documents	1362	459,277	425,568	378,806
Retained earnings (uncovered loss)	1370	(11,385,715)	2,183,867	4,488,333
Total for Section III	1300	53,428,498	39,504,958	33,525,989
Minority interest	1301	(3,568,663)	(7,999,667)	(3,174,529)
Business reputation	1302	52,730	447,661	383,882

INDICATOR DESCRIPTION	CODE	AS OF DECEMBER 31, 2016	AS OF DECEMBER 31, 2015	AS OF DECEMBER 31, 2014
IV. LONG-TERM LIABILITIES				
Borrowed funds	1410	25,503,301	5,009,781	10,297,050
Deferred tax liabilities	1420	-	-	-
Estimated Liabilities	1430	241,701	258,139	234,698
Other liabilities	1450	56,560,149	44,539,652	46,867,827
Total for Section IV	1400	82,305,151	49,807,572	57,399,575
V. SHORT-TERM LIABILITIES				
Borrowed funds	1510	21,541,433	40,471,691	26,544,753
Accounts payable	1520	69,463,408	70,174,285	48,838,049
inclusive of the following:				
suppliers and contractors	1521	14,239,812	12,170,314	10,450,105
advance payments received	1522	46,417,106	46,717,162	30,300,501
debt to the members of the personnel of the Company	1523	684,328	538,201	506,862
debt to the state extra-budgetary funds	1524	285,031	269,599	186,939
debts for taxes and dues	1525	1,989,920	2,442,914	2,246,404
other creditors	1526	5,847,212	8,036,096	5,147,238
Revenue of the future periods	1530	243,596	311,957	453,096
Estimated Liabilities	1540	5,912,181	5,372,253	3,892,360
Special-purpose financing	1546	738,535	534,469	428,569
Debts to customers	1547	-	49,077	152,030
Other liabilities	1550	-	-	48
Total for Section V	1500	97,899,153	116,913,731	80,308,904
BALANCE SHEET	1700	230,116,870	198,674,254	168,443,822

Deputy Chief Executive Officer –
Director for Economics and Finance

S.N. Filatov

COMBINED REPORT ON FINANCIAL RESULTS FOR JANUARY-DECEMBER 2015

EXPLANATORY NOTES	INDICATOR DESCRIPTION	CODE	FOR THE REPORTING PERIOD	FOR THE SAME PERIOD OF THE PREVIOUS YEAR
5.8	Revenue	2110	63,426,560	56,710,291
	Cost of sales	2120	(50,361,072)	(47,052,686)
	Gross profit (loss)	2100	13,065,488	9,657,605
	Commercial costs	2210	(1,441,745)	(1,362,848)
	Administrative expenses	2220	(5,605,456)	(5,534,666)
	Profit (loss) from sales	2200	6,018,287	2,760,091
	Income from participation in other organizations	2310	18,561	2,851
	Interest receivable	2320	1,630,515	2,416,326
	Interest payable	2330	(4,628,114)	(3,606,149)
	Other income	2340	4,282,498	13,236,676
	Other expenses	2350	(21,599,018)	(16,625,063)
3.3	Capitalized income (loss)	2360	-	(38,895)
	Profit (loss) before tax	2300	(14,277,270)	(1,854,163)
	Current income tax	2410	1,207,874	(2,921,423)
	including permanent tax liabilities (assets)	2421	(294,315)	(63,538)
	Change of deferred tax liabilities	2430	(1,119,639)	(330,402)
	Change of deferred tax assets	2450	1,340,978	1,127,401
	Other	2460	(19,344)	134,494
	Redistribution of income tax within the consolidated group of taxpayers	2465	(2,130,131)	(317,674)
	Net profit (loss)	2400	(14,997,532)	(4,161,767)
	Profit attributable to the group	2470	(13,715,635)	747,503
	Profit attributable to small shareholders	2480	(1,281,897)	(4,909,270)

Deputy Chief Executive Officer –
Director for Economics and Finance

S.N. Filatov

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APPENDIX 5. COMBINED ACCOUNTING STATEMENTS

CONCLUSION ON THE RESULTS OF THE CONFIRMATION OF THE INTEGRATED ANNUAL REPORT OF JSC ATOMOMENERGOMASH FOR 2016 BY AN INDEPENDENT AUDIT ORGANIZATION

INTRODUCTION

This conclusion is addressed to the management of Joint Stock Company «Atomic and Power Engineering» (hereinafter referred to as JSC Atomenergomash).

The subject matter of this confirmation is the 2016 Integrated Annual Report of JSC Atomenergomash (hereinafter referred to as the Report) and the activities of JSC Atomenergomash in the field of sustainable development.

RESPONSIBILITIES OF THE PARTIES

The management of JSC Atomenergomash is fully responsible for the preparation and the reliability of the above Report.

We are responsible for the results of the work implemented in order to confirm the Report only to JSC Atomenergomash within the framework of the task agreed with JSC Atomenergomash and do not assume any liability to any third party.

VOLUME, CRITERIA, AND LEVEL OF CONFIRMATION

The activity of JSC Atomenergomash in the field of sustainable development was evaluated according to the following criterion:

- the nature and the degree of compliance of JSC Atomenergomash with the principles of the AA1000APS 2008 standard: inclusiveness (involvement), materiality, and susceptibility.

The Report was evaluated according to the following criteria:

- compliance with the disclosure requirements of the GRI Sustainability Reporting Standards for the main version of the report;
- compliance with the requirements of the International Integrated Reporting Standards;
- compliance with the requirements of the current legislation of the Russian Federation for annual reports of joint-stock companies in terms of disclosed information;
- compliance with the regulatory requirements of Rosatom State Nuclear Energy Corporation and internal local regulations of JSC Atomenergomash in terms of the content of public reporting.

Our audit was planned and implemented in accordance with requirements of the AA1000 Assurance Standard 2008 (moderate approval level) and the International Standard of Assurance (ISAE) 3000 (revised) «Assurance tasks other than audit and review of financial information of past periods» (limited level of assurance). The assurance corresponds to type 2 according to the definition of the standard AA1000AS 2008, subject to the limitations specified in the «Assurance limits» section of this opinion.

The selective verification of information in the Report which is implemented by us in the framework of ensuring the above level of assurance does not claim to provide a high level of assurance for confirmation. The confirmation work was based on the supporting information provided by the management of the Company and its employees as well as on data from available sources and on analytical methods of confirmation. With regard to the quantitative information contained in the Report, the work performed cannot be considered sufficient to identify all possible inaccuracies and distortions. Nevertheless, the evidence we have collected is sufficient to form an opinion in accordance with the above levels of assurance.

METHODOLOGY OF CONFIRMATION

Within the framework of the work, we have performed the following procedures:

- Selective investigation and testing of systems and processes implemented by JSC Atomenergomash in order to ensure and to analyze the compliance of activities with the AA1000 APS 2008 principles; collection of evidence supporting the practical implementation of the principles.
- Study of protocols of dialogs and public consultations with stakeholders.
- Conducting interviews and obtaining documentary evidence from management representatives and employees of JSC Atomenergomash.
- Examination of information regarding activity in the context of sustainable development issues which is available on the websites of JSC Atomenergomash and enterprises of the management profile.
- Examination of published statements of third parties regarding the economic, environmental, and social aspects of JSC Atomenergomash and enterprises of the management profile in order to verify the validity of the statements made in the Report.
- Analysis of non-financial reporting of foreign companies of a similar market segment for the purposes of benchmarking.
- Analysis of internal audit processes used in JSC Atomenergomash for non-financial reporting.
- Selective examination of documents and data on the effectiveness of management systems for economic, environmental, and social objectives of sustainable development existing in JSC Atomenergomash.
- Examination of current processes of collecting, processing, documenting, verifying, analyzing, and selecting the data to be included in the Report.
- Analysis of the information in the Report for compliance with the criteria specified above.

LIMITATIONS OF CONFIRMATION

The confirmation was carried out exclusively with respect to data for 2016.

The assessment of reliability of the performance information presented in the Report was conducted with respect to compliance with the requirements for the main version of the Report «in accordance» with the GRI Standards and the information referred to in the GRI Content Index, as well as to compliance with the requirements of the International Standard for Integrated Accounting and the current legislation requirements of the Russian Federation for annual reports of joint stock companies in terms of disclosed information. With respect to quantitative indicators, we assess their compliance with external and internal reporting documents provided to us.

Confirmation is not carried out with respect to forward-looking statements nor to statements expressing opinions, beliefs, or intentions of JSC Atomenergomash to undertake any actions related to the future. Confirmation of statements whose sources are the expert's judgments indicated in the Report is not carried out.

The confirmation was made only with respect to the version of the Report provided in Russian in the MS Word format and containing information to be published both in hard copy and in the electronic form on the website of JSC Atomenergomash.

CONCLUSIONS

The following conclusions are based on our confirmation work carried out in the volume and within the limitations indicated above.

The nature and the degree of compliance of JSC Atomenergomash with the principles of AA1000 APS 2008

As a result, and within the scope, of our work we have not identified any significant inconsistencies with the criteria of the AA1000 APS 2008 standard with respect to the compliance of JSC Atomenergomash with its principles (involvement, materiality, susceptibility).

Compliance of the Report with the Requirements of the GRI Sustainability Reporting Standards (the Main Version of the Report)

Analysis of Compliance with the Requirements of the GRI Standards

In order to form a position on this issue, we have conducted an analysis of compliance in the preparation of the Report with the requirements of the GRI Standards with respect to the principles and elements of reporting for the selected «in accordance» version of the Report.

- Disclosure of common elements of reporting is mainly presented in compliance with the requirements of the GRI Standards for the declared «in accordance» version of the report. For 108-2, there is no disclosure of the breakdown by sex of the number provided for in the GRI Standards in the context of the type of employment contract and the type of employment.
- The Report mostly complies with the requirements of the GRI 103 (2016) Standard for the disclosure of approaches to the management of significant topics: the reasons for recognizing topics as significant, approaches to management and, on selected substantive topics, mechanisms for evaluating management approaches, are disclosed.
- The thematic elements of the reporting required to ensure compliance with the requirements for the main version of the report «in accordance» with the GRI Standards are given in the Report in compliance with the requirements of the GRI Standards (2016). If it is not possible to fully disclose the indicators, the report indicates which information was excluded. Reasons for incomplete disclosure are provided for all the indicators necessary to ensure compliance with the requirements for the main version of the report «in accordance» with the GRI Standards.

Overall assessment of the Report

- As a result, and within the scope, of our work we have not identified any significant deviations from the requirements for the main version of the Report «in accordance» with the GRI Standards. This conclusion was formulated taking into account the above analysis of compliance with the requirements of the GRI Standards.

Compliance of the Report with the Requirements of the International Integrated Reporting Framework

Based on the work performed, we did not find any significant deviations of the Report from the observance of the fundamental principles of the International Integrated Reporting Framework and the requirements for the composition of the content elements required for an integrated report. At the same time, we note that the requirements of Clause 1.20 regarding compliance with the requirements of the International Integrated Reporting Framework have not been complied with.

Compliance with the Requirements of the Current Legislation of the Russian for Annual Reports of Joint-Stock Companies in Terms of Disclosed Information

Based on the work performed, we have not identified any significant inconsistencies of the Report with the requirements of the Regulation on Information Disclosure by Issuers of Equity Securities (approved by the Bank of Russia on December 30, 2014 and registered under No. 454-P) regarding the disclosure of information in the annual report of a joint-stock company. At the same time, we note that the Report does not detail the costs in terms of types of energy resources.

Compliance with the Regulatory Requirements of Rosatom State Nuclear Energy Corporation and Internal Local Regulations of JSC Atomenergomash in Terms of the Content of Public Reporting

Based on the conducted work, we have not identified any significant inconsistencies in the disclosure of information with the requirements of the Unified Industry Policy of Rosatom State Corporation in the field of public reporting and the Public Annual Reporting Standard of JSC Atomenergomash.

Recommendations

1. Expand the practice of disclosing indicators in relation to the planned values for the reporting year and the target values for the future to apply to all the disclosed GRI indicators.
2. For organizations in the management profile that are not part of the combined reporting perimeter, consider the possibility of increasing the degree of disclosure of relevant substantive topics in the event that their impacts are recognized as significant.
3. Increase the disclosure degree of indicators for which the requirements of the GRI Standards are not fully taken into account (partial disclosure).
4. In all cases of incomplete disclosure of indicators, explain the reasons for such incomplete disclosure in accordance with the requirements of the GRI Standards.
5. Take into account the remarks contained in the above sections of this conclusion.

STATEMENT OF COMPETENCE AND INDEPENDENCE

ENPI Consult Limited Liability Company is an independent audit organization engaged in the professional provision of assurance services and is a licensed provider of assurance services in accordance with the requirements of the AA1000 Assurance Standard. ENPI Consult Limited Liability Company is a member of the self-regulating organization of auditors of the Sodruzhestvo Association and conducts its activities in accordance with the requirements of independence and other ethical requirements of the Code of Ethics for Professional Accountants issued by the Council for International Standards of Ethics for Accountants, which is based on the fundamental principles of honesty, objectivity, professional competence and due diligence, confidentiality, and professional conduct. ENPI Consult Limited Liability Company applies the International Quality Control Standard 1 and, therefore, supports an exhaustive quality control system, including the system confirmed by documented policies and procedures regarding compliance with ethical requirements, professional standards, and applicable legal and regulatory requirements. The company has a system of quality control of audit services, including the monitoring of compliance with ethical standards.

ENPI Consult Limited Liability Company officially declares that this Opinion represents the position of an independent auditor in respect of the Report. ENPI Consult Limited Liability Company and its employees have no relations with JSC Atomenergomash or its subsidiaries and affiliates that could lead to a conflict of interest in the provision of services to confirm the Report.



V.Yu. Skobarev
Moscow, June 1, 2017

Director General of
ENPI Consult Limited Liability Company

APPENDIX 6. PUBLIC ASSURANCE REPORT

Representatives of JSC Atomenergomash (hereinafter referred to as the Company) addressed us to assess the Report for 2016 in terms of completeness and materiality of information as well as effectiveness of the Company's response to the suggestions from stakeholders.

We take into account that JSC Atomenergomash is forcing the development of advanced international and industry standards, including the latest GRI Sustainability Reporting Standards (GRI SRS), the Integrated Reporting Standard (IIRC), the AA1000 series and Rosatom State Corporation's Public Sector Policies.

The report addresses the most significant topics that are relevant to the Company and to its stakeholders. The structure of the Report made it possible to disclose key results and impacts in the economic, environmental, and social spheres of activity of the Company. The methodology developed and implemented by the Company to assess the materiality of information for inclusion in the Report based on the requirements of international standards has allowed to take the opinion of the top management of the Company and its stakeholders into account. In our opinion, there is no reason to doubt the objectivity of the procedure for determining the content of the Report.

In our opinion, the Report represents the most relevant information for stakeholders. We are not aware of any facts that call the reliability of the information in the Report into question or that indicate the concealment of material information. The results of the activities are set out in the Report in a balanced way: they represent both the Company's achievements and key problems and risks.

In the reporting year, the Company involved interested parties in the process of preparing the Report in the format of correspondence public dialogs, which allow participants to submit their recommendations to and receive a response from the Company. Based on the results of the dialogs, protocols were drafted and agreed with participants; in accordance with these protocols, amendments and comments were added to the text of the Report, which made it possible to raise the awareness of stakeholders on issues of interest to them. In addition, the Company has fulfilled its obligations assumed in previous reporting campaigns.

In the current year, the Company has maintained effective cooperation with its stakeholders. Separately, we would like to note that the Company carries out serious work on a regular basis aimed at providing a wide audience of dialogs, including the attraction of new participants.

We express confidence that JSC Atomenergomash will consistently implement its obligations, plans, and intentions stated in the Report for 2016 and will continue to develop its activities in the field of public reporting and interaction with stakeholders.



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S. S. GOLOVACHEV
Leader of the Project "Development of the
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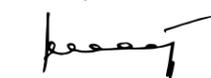
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Chairman of the Inter-regional Movement
«Oka»



A. Y. KHITROV
General Director of All-Russian Sectoral
Association of Employers "Union of
Employers of Nuclear and Power Industries,
Science of Russia"

APPENDIX 7. REPORT ON ANALYSIS OF COMBINED FINANCIAL STATEMENTS

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Table on the consideration of stakeholders' suggestions on the content of the Annual Report

№	SUGGESTION/RECOMMENDATION	COMPANY'S RESPONSE
SHAREHOLDERS, ROSATOM STATE CORPORATION		
1.	Define new products and new markets for AEM.	Accounted for; the corresponding footnote on page 9 of the Report has been added.
2.	Place detailed information on the nomenclature in the online version and restricting this document to concise and the most basic information.	Accounted for; the corresponding information will be placed in the interactive version of the Report.
3.	Remove information on subsidiaries for 2014–2015 in the interactive version or make a link to the reports of past years. Leave the data for 2016 in the paper version.	Accounted for; data in the paper version of the Report will be presented only for 2016; the rest of the information will be transferred to the interactive version.
4.	Put more emphasis on the contribution of the Division to the implementation of the strategic goals of Rosatom State Corporation.	Accounted for; one of the key topics of this reporting campaign was the contribution to the implementation of the strategic goals of Rosatom State Corporation.
5.	The performance of KPI in 2016 should be commented on.	Accounted for; a comment has been added to the corresponding section of the Report.
6.	Add a statement that investment decisions are made using the gate principle.	Accounted for; the corresponding wording is included in the Report.
7.	Show data on the implementation of major projects for specific strategic objectives rather than for the investment program of each EMP.	Accounted for; the section was revised in accordance with the comments.
8.	Include information on approaches to managing key risks and management results in 2016 in the report.	Accounted for; the above information is presented in the "Risk Management" section.
9.	Reduce the amount of reporting information presented on the basis of the methodology for determining significant topics for disclosure.	Accounted for; due to the transition to the new GRI Standards, the volume of the full version of the Report (including the online part) was reduced by 25% without loss of quality in the current reporting campaign.
PERSONNEL/TRADE UNIONS		
10.	The last stage ("Annual Report Printing" and "Annual Report Placement on the Website") must be completed no later than on June 1, 2016.	Accounted for; the company annually shortens the terms of production of the reporting products. For example, in this reporting campaign, a booklet was published following the results of the work of the Division for 2016 on May 5, 2017.
ENTITIES INCLUDED IN THE MANAGEMENT PERIMETER		
11.	A more detailed commentary on the table of the agenda for sustainable development should be provided in the report.	The design versions will contain references to relevant sections of the report with detailed information on all the issues.
SCIENTIFIC AND EXPERT COMMUNITY		
12.	Show the volume of investments in the part of R&D made in the reporting year.	Accounted for; the indicator is presented in the "Investment Activity" section.
13.	A more detailed description of the specific measures aimed at protecting intellectual property that are included in the reporting period should be provided in the report.	This will be taken into account in future reporting periods.

Table of consideration of recommendations received in the previous reporting period

№	SUGGESTION/RECOMMENDATION	COMPANY'S RESPONSE
1.	Combination of three sections into one (Internal Control, Audit, and Risk Management) seems to be artificial. The «Information about the Report» subsection should be moved to Appendices. The «Interaction with Stakeholders» subsection should be left in the «Communication Activities» section because it directly relates to the subject matter of the section.	Partially accounted for. The «Stakeholder Engagement System» subsection is integrated into the appendix «About the Report»; it reflects information on how the Company interacts with its stakeholders in the part of public reporting.
2.	It makes sense to issue a brief report before the main report rather than simultaneously.	Accounted for; the brief report was issued on May 5, 2017.
3.	Participation in international competitions is recommended because it allows obtaining an estimate of a qualitatively different level of reporting and establishing connections to different stakeholder target groups (in addition to the above, it makes sense to consider IR Society and Report Watch contests / ratings)	This will be taken into account in future reporting periods.
4.	The last stage ("Annual Report Printing" and "Annual Report Placement on the Website") must be completed no later than on June 1, 2016.	This will be taken into account in future reporting periods.
5.	A more detailed commentary on the table of the agenda for sustainable development should be provided in the report.	Taken into account.
6.	A more detailed description of the specific measures aimed at protecting intellectual property that are included in the reporting period should be provided in the report.	This will be taken into account in future reporting periods.
7.	Disclose the indicator "Number of created highly productive jobs."	This will be taken into account in future reporting periods after a common calculation methodology of Rosatom SC is adopted.
8.	Pay attention to market valuation of intangible assets of the Division, work relating to patent and legal protection of inventions, know-how, trademarks, brands and other intangible assets.	Taken into account.
9.	The disclosure of quantitative and qualitative comparison of the results in comparison with competing companies in domestic and international markets should be considered.	This will be taken into account in future reporting periods.

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JOINT-STOCK COMPANY NUCLEAR AND MECHANICAL
ENGINEERING JSC ATOMENERGOMASH

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BY THE INTERDISTRICT INSPECTORATE NO. 46
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