



**PUBLIC
ANNUAL REPORT
2012**

State Atomic Energy
Corporation ROSATOM
Results of Operations
in 2012





The State Corporation ROSATOM aims to provide information for all stakeholders in the most convenient format in terms of search and analysis.

A full and detailed text of the annual public report for 2012 can be found in the interactive annual report, available at:

 ar2012.rosatom.ru

Table of Contents

About This Report	3	4.3. The Effective NPP-Generated Power Supply of the Economy of the RF.....	121
Key results	5	4.4. Strengthening Our Position as Global Player in the World Market of Nuclear Technologies and Services	131
Main Events	7	4.5. Nuclear and Radiation Safety and the Comprehensive Resolution of Outstanding Nuclear Legacy Problems	141
Address by the Chairman of the Supervisory Board	9	Section 5.	
Address by the Director General	10	Interaction with Stakeholders during Preparation of the Report	154
Address by the Academician-Secretary of the Department of Nanotechnology of the Russian Academy of Sciences, President of the Kurchatov Institute National Research Centre	11	5.1. Public Reporting System of the Corporation and its Organizations	155
Section 1.		5.2. Dialogue With Stakeholders	157
Information about the Corporation ..	13	5.3. Taking Into Account Proposals of Stakeholders.....	158
1.1. General Description of the Corporation.....	14	5.4. Statement of Public Assurance of the Report	161
1.2. Target Markets.....	16	List of Abbreviations	163
Section 2.		Glossary	165
Strategy and the Management System	21	Appendices	169
2.1. Operational Strategy of ROSATOM State Corporation.....	22	Appendix 1. Tables of standard disclosures and performance indicators GRI (G3.1), and RSPP basic performance indicators	169
2.2. Business Model.....	25	Appendix 2. Indicator chart of ROSATOM public reporting.....	187
2.3. Sustainable Development Management	25	Appendix 3. Statement by the audit committee on financial and operating performance of the State Atomic Energy Corporation ROSATOM and its subsidiaries in 2012	196
2.4. Corporate Governance.....	29	Appendix 4. Opinion of the auditing procedures office of the department for internal control and audits of ROSATOM State Corporation on the results of internal assessment “public reporting management by ROSATOM State Corporation and its subsidiaries” — business unit, in terms of public reporting process’ conformity to the corporation’s public reporting policy	199
2.5. Managing Organizational Development.....	38	Appendix 5. Summary IFRS consolidated financial statements of OJSC Atomenergoprom for 2013 and opinion of independent auditor, ZAO KPMG	200
2.6. Risk Management	40	Appendix 6. KPMG Limited Assurance Report on Rosatom non-financial reporting 2012.....	211
Section 3.		Appendix 7. List of key organizations of ROSATOM.....	212
Capital Management Efficiency	45	Feedback Questionnaire	218
3.1. Corporate Capitals.....	46	Contact Information	220
3.2. Financial Capital Management... ..	48		
3.3. Production Capital Management	57		
3.4. Human Capital Management	63		
3.5. Intellectual Capital Management	72		
3.6. Social and Economic Capital Management.....	76		
3.7. Social and Goodwill Capital Management.....	84		
3.8. Environmental Impact Management	91		
Chapter 4.			
Results of the Realization of Strategy in 2012	103		
4.1. Ensuring the Realization of State Priorities by the Corporation Within the Accomplishments of State Authorities in the Established Business Line	104		
4.2. Strengthening the Innovative Development of Russian Nuclear Technologies and Expanding Their Application.....	110		

About This Report

The 2012 public annual report of the State Atomic Energy Corporation ROSATOM (ROSATOM State Corporation, the Corporation, the Report) is the fourth Report prepared voluntarily by the Corporation and addressed to a broad circle of Stakeholders.

The integrated report comprehensively demonstrates the major financial, economic and business performance of ROSATOM State Corporation in 2012. The Report contains information about the Corporation's position in sustainable development, which is essential for international atomic organizations, environmental organizations, representatives of local communities in the areas of the business presence of the Corporation and other stakeholders involved.

The Company's corporate documents have established a twelve-month reporting cycle; the previous Report was published in 2012. The present Report contains information regarding the Corporation's business performance for the period from January 1 to December 31, 2012.

RULES AND REGULATIONS

This Report was prepared in conformity with the following rules and regulations:

- The State Atomic Energy Corporation ROSATOM's public reporting policy,
- The ROSATOM State Corporation's public annual reporting standards,
- The Guidelines on Sustainable Development by the Global Reporting Initiative (GRI, version G 3.1),
- The AA1000 series of standards of the Institute of Social and Ethical Accountability,
- Recommendations of the RSPP (Russian Union of Industrialists and Entrepreneurs) for management practice and corporate non-financial reporting, including guidelines for calculating performance indicators and efficiency figures,
- The Consultation Draft of the International Integrated Reporting Council (IIRC).¹

SCOPE OF THE REPORT

The scope of the Report covers operations of ROSATOM State Corporation and its subdivisions in the Russian Federation and elsewhere. Due to the specific

operating conditions of ROSATOM State Corporation's business and requirements to protect classified data, information on current activities of the Russian nuclear weapons complex is not disclosed.

The Report uses several parameters of consolidation. All the sections of the Report disclose the financial-economic indicator EBITDA (see sections "Key Results", "Corporation's Equity Capital" for the Corporation's subdivisions in accordance with budget consolidation parameters as of December 31, 2012, except organizations with authorised-use-only reports (see Appendix 7). In all sections of the Report, except the "Financial and Operating Performance" sub-section, financial economic efficiency figures are given in accordance with the parameter of consolidated financial reporting, Main IAS of ROSATOM State Corporation. Efficiency figures in the section "Financial and Operating Performance" are in accordance with the parameter of IAS-compliance of consolidated financial reports filed by OJSC Atomenergoprom (the main IAS reporting forms and independent auditor's opinion are available in Appendix 5). Some indicators of GRI G3.1 Guidelines are disclosed in the parameter of the key organizations (for purposes of public reporting) of ROSATOM State Corporation.

Figures for 2011 for the Structure of the revenue, Liquidity ratio, Readjustment of equity share, Net and newly added value were partially changed due to the incorporation of information from subsidiaries (OJSC Nilgraphit, OJSC Krasnaya zvezda, OJSC PO Molniya) under provisions of the purchase agreement of business under consolidated control in September 2012.

Due to the transfer to the standards of Main IAS from January 1, 2011, ROSATOM State Corporation has filed financial reporting that provides earnings, equity and investment figures in companies for 2011 in compliance with international accounting standards (IAS) (In 2011 Annual Report consolidated figures were provided in accordance with Russian accounting standards (RSA).

In preparation of the sections "Environmental Safety" and "Ensuring Nuclear

and Radiation Safety and Complex Problem Resolution of the 'Nuclear legacy'", it was taken into account that ROSATOM State Corporation publishes annual [Safety Reports](#) and separate organizations and subdivisions within the Corporation have been publishing environmental reports since 2009. Their reports offer a wide spectrum of specialist information, describing their business in the regions where they are operating (with respect to nuclear and radiation safety and the impact on the environment). This Report provides links to such reports.

PROCESS OF IDENTIFYING RELEVANT INFORMATION FOR THE REPORT

Information Relevance

In the course of preparing this Report, ROSATOM State Corporation has paid a considerable amount of attention to determining information relevance and importance for the Report. Relevant information is the information that is important for the Corporation and the main Stakeholders and also provides a basis for high-stake decision making for ROSATOM State Corporation.

 For details see the e-version of the Annual Report

Classifying relevant information and making it oriented to corporate strategy allows us to greatly reduce the volume of the printed version of the Report in comparison to previous reports. The majority of the information is transferred to the electronic version of the Report displayed at the official ROSATOM site and there are references to it at the appropriate places within the Report.

Report Structure

In the preparation of the Report, recommendations of IIRC were taken into account for the disclosure of the main principles and the essence of topics as provided in the Draft of the International Integrated Reporting Council. The Report structure has been changed in accordance with the Draft. The major element of the Report presents the business model of the Corporation (see Section 1) based on the long-

¹ Go to www.theiirc.org/wp-content/uploads/Consultation-Draft/Consultation-Draft-of-the-InternationalIIRFramework.pdf.

term development strategy. Section 2 discloses the Corporation's strategy and management system. Because of its major importance, as well as its role in disclosing the business model, information on Equity Capital Management is presented separately in Section 3. Section 4 describes the input of the results of the operational performance during the period under review into the implementation of strategic goals of ROSATOM State Corporation. Section 5 deals with interactions with Stakeholders in the course of the Report's preparation.

Priority Topics

The senior management of ROSATOM State Corporation selects priority topics with Stakeholders through a process of dialog. The priority topic of the 2012 Report is the "Management of Intellectual Property of ROSATOM State Corporation as a factor in enhancing competitiveness in the Russian and Global Atomic Power Market for Nuclear Energy".

ENGAGEMENT OF STAKEHOLDERS

In order to ensure the transparency, accountability and relevance of disclosed information, preparation of the Report involved cooperation with Stakeholders in compliance with the AA1000SES standard. Four sets of dialog with Stakeholders were held to cover the Report content: two discussions on specific themes ("Disclosure of Information about Intellectual Property Management in ROSATOM State Corporation as a Factor in Enhancing Competitiveness in the Russian and Global Atomic Power Market for Nuclear Energy in the 2012 Report" and "Disclosure of Information about ROSATOM State Corporation's Business Model in the 2012 Report" and public consultations on the Draft Report. The Report takes account of the main requests raised by Stakeholders through the dialog process (see Report Section 5).

DESCRIPTION OF FUTURE PLANS AND INTENSIONS

The Report contains plans and intentions for the medium-term and long-term future. Such plans are estimative by nature and their implementation depends on a number of economic, political and legal factors, which are beyond the Corporation's control (the global

financial, economic and political environment, market situation, changes in taxation, customs and environmental law, etc.) Actual results therefore may therefore differ from predicted estimates.

REPORT VERIFICATION

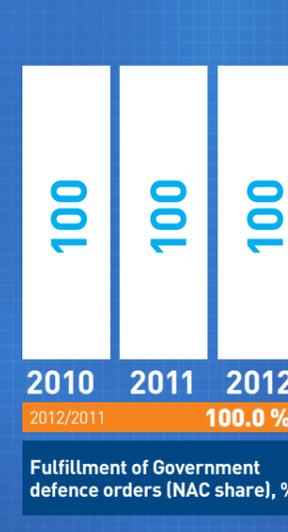
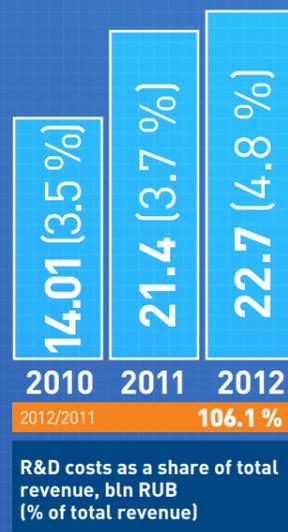
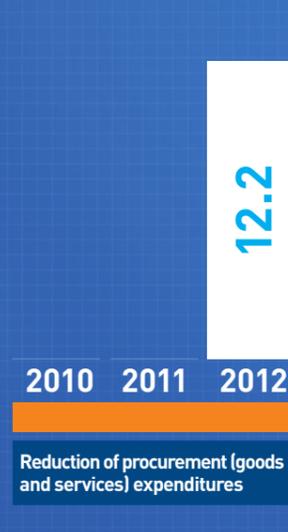
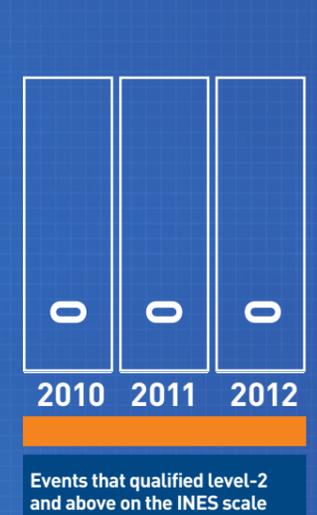
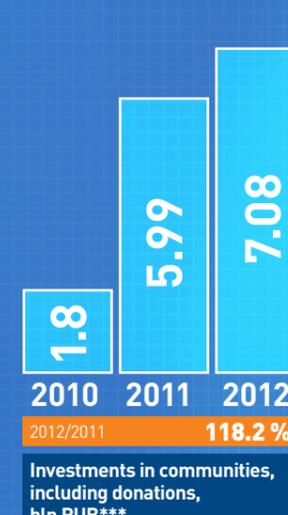
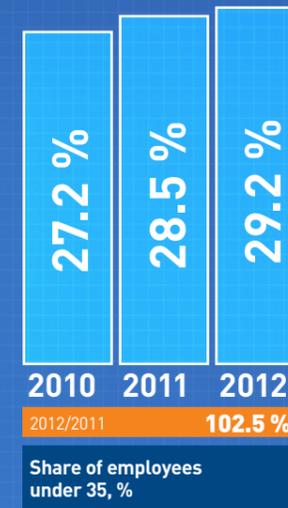
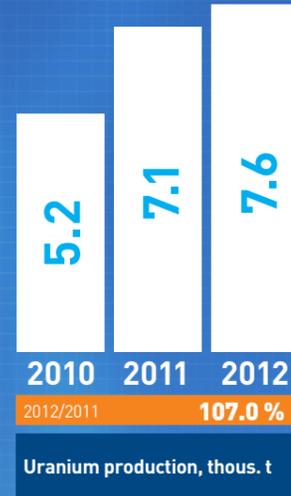
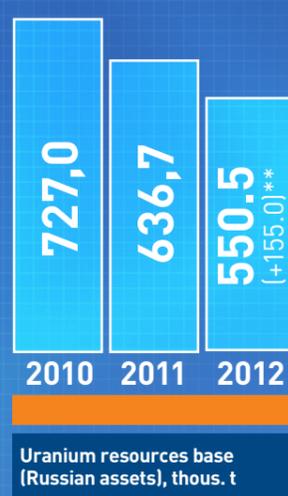
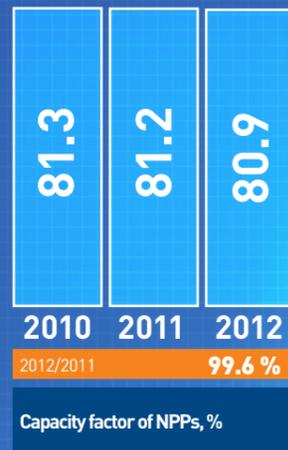
The total number of indicators disclosed in this Report is greater than in the 2011 Report (the number of GRI efficiency indicators is 74, 18 more than in the previous report. The number of efficiency indicators of ROSATOM State Corporation public reporting is 180, 18 more than in 2011). The list of standard indicators and GRI efficiency indicators and indicators of ROSATOM State Corporation public reporting is presented in Appendices 1 and 2.

This Report has gone through the review of independent auditors verifying non-financial information under AA1000AS and ISAE 3000 standards (limited assurance statement on non-financial reporting by ROSATOM for 2012 is presented in Appendix 6) and the Report was taken through the Stakeholder assurance procedure in compliance with the AA1000AS standard (the Statement of Stakeholder Assurance of this Report is on page 161).

The Corporation considers this Report to meet the standards of the «A+» level of the GRI G3.1 Guidelines.

		C	C+	B	B+	A	A+
Mandatory	Self-declaration						✓
	Third party review						✓
Optional	GRI review						

Key Results



Key performance indicators of ROSATOM established by the Supervisory Board for 2012.

* all 2012/2011 comparisons are presented as a ratio in % terms

** figures for raw material stock are given for Uranium One Inc. Due to the change in the calculation of the ore in stock in 2012, figures are given separately for Russian stock and for Uranium One Inc. Figures for 2011 are given as per Russian stock only.

*** 2010 figures are calculated according to the Rules of consolidated business accounting in Russia (RAR). Starting from January 1, 2011, ROSATOM applied Main International Accounting Rules (IAC) for the consolidation of financial results.

**** figures are calculated according to the Rules of Consolidated Business accounting in Russia (RAR).

Main Events 2012

January

- The mission of the Nuclear Energy Agency (NEA) of OECD was held in Russia in the context of application rules to join this organization
- Public hearings on the project "A complex for spent nuclear fuel handling from AMB (channel water graphite reactor) of Beloyarsk NPP at FBUE Production Association Mayak (Ozersk, Chelyabinsk region)



June

- Kalinin NPP Unit 4 started operations at 100% of its capacity
- The signing of a Memorandum of Understanding between ROSATOM State Corporation and the French National Agency for Radioactive Waste Management (ANDRA) concerning cooperation in the field of radioactive waste management
- ROSATOM State Corporation and the Ministry of Energy of the Republic of Ghana signed a Memorandum of Cooperation in the peaceful use of nuclear energy

April

- The making of changes to Supplement B of the agreement between the Government of the Russian Federation and the Government of Japan concerning cooperation in the peaceful use of nuclear energy
- ROSATOM State Corporation and OJSC LUKOIL signed a general cooperation agreement
- ROSATOM State Corporation was given the 2012 IT-LEADER Award in the nomination "Energy Industry Companies"

February

- SUE RFNC-VNIITF completed the development of the super computer "Zubr"



March

- The signing of an agreement between the governments of Russia and Vietnam concerning cooperation in the importation to the Russian Federation of irradiated nuclear fuel from research reactors
- The first marketing office of CJSC Rusatom Overseas was opened in Kiev (Ukraine)
- Premiere screening of the feature motion picture "Atomic Ivan"

May

- The ratification of an agreement between the Government of the Russian Federation and the Government of Japan concerning cooperation in the peaceful use of nuclear energy
- The signing of an agreement between the Government of the Russian Federation and the Government of the Republic of Uzbekistan concerning cooperation in the importation to the Russian Federation of irradiated nuclear fuel from research reactors

June

- Kalinin NPP Unit 4 started operations at 100% of its capacity
- The signing of a Memorandum of Understanding between ROSATOM State Corporation and the French National Agency for Radioactive Waste Management (ANDRA) concerning cooperation in the field of radioactive waste management
- ROSATOM State Corporation and the Ministry of Energy of the Republic of Ghana signed a Memorandum of Cooperation in the peaceful use of nuclear energy

- The governments of the Russian Federation and the Federal Republic of Nigeria signed an agreement on cooperation in the design development, construction, operation and decommissioning of nuclear power plants in Nigeria
- A memorandum was signed between ROSATOM State Corporation and the Ministry for Science and Information and Communication Technology of the Peoples' Republic of Bangladesh concerning the establishment of a nuclear energy information center on the territory of this country

- A road map for separate spheres of Russian-Chinese cooperation in nuclear energy was signed by ROSATOM State Corporation and the China Atomic Authority
- A memorandum of mutual understanding for the training of specialists was signed between ROSATOM State Corporation and the Nuclear Energy Agency of Mongolia
- ROSATOM State Corporation won top rating among leaders of innovative development programs, as prepared by Expert RA rating agency

July

- Construction of the 1st Belarus NPP began in Belorussia
- ROSATOM and Ukraine's Ministry of Energy and Coal Industry signed a memorandum concerning integration and cooperation in the peaceful uses of nuclear energy

August

- Bushehr NPP unit 1 (Islamic Republic of Iran) was brought to 100% of design power capacity
- A contract for the building of a pilot, universal, new generation, atomic FSUE Atomflot icebreaker was signed between SUE ROSATOMflot and LLC Baltijskiy Zavod-Sudostroyeniye (shipbuilding)
- ROSATOM State Corporation initiated establishment of a Russian integrated reporting network

September

- Unit 4 of Kalinin NPP started commercial operation at rated power
- Unit 1 was commissioned at Kudankulam NPP (Republic of India)
- ROSATOM State Corporation and the US Department of Energy signed a commitment to expand cooperation in innovation technologies of environmental rehabilitation and radioactive waste handling

October

- Russia and Ukraine started building a nuclear fuel fabrication plant
- The signing of an agreement between the government of the Russian Federation, the Government of Hungary and the Cabinet of Ministers of Ukraine concerning cooperation in the field of shipment of nuclear material between the Russian Federation and Hungary through the territory of Ukraine
- ROSATOM State Corporation came first in a strategic planning quality contest among state-owned companies in "Expert-400" rating

November

- The commissioning of an NPP virtual control panel designed by OJSC SPbAEP
- The governments of the Russian Federation and Kyrgyz Republic signed an agreement on cooperation in the area of nuclear energy for peaceful purposes
- The establishment of the Russian Nuclear Innovative Consortium (RNIC) with the participation of flagship companies of the Nuclear Energy Industry and nuclear-oriented, higher educational institutions for the quality control of educational programs



December

- First concrete pouring started at Tianwan-3 site of Tianwan NPP in China
- The Russian Federation and the United Arab Emirates (UAE) signed an Intergovernmental Agreement concerning cooperation in the peaceful use of nuclear energy
- The Governments of the Russian Federation and China signed a protocol of cooperation during construction of units 3 and 4 of Tianwan NPP
- ROSATOM's operating system was awarded 1st place in the Internet rating of popular operating systems



Address by the Chairman of the Supervisory Board



DEAR READERS!

The 2012 reporting year showed us that the global nuclear industry is on the rise again. The crisis caused by the events at the Fukushima nuclear power plant in Japan has on the whole been surmounted, and the industry is once more gaining momentum. Today, it is developing countries, which demonstrate an ever-increasing need for energy, that are becoming central to the development of peaceful nuclear technologies.

The trends of 2012 point towards the strengthening of the Russian Federation's position in the international nuclear market. We see this as an indication of the recognition of our country's leading role in the sphere of nuclear technologies, of our partners' confidence in us in terms of reliability and safety. In the past year, it was decided that the IAEA's High Level Conference, "Nuclear Energy in the XXI century", which is to determine global nuclear power generation's main directions of development, will be held in St. Petersburg, in the summer of 2013. In 2012, much preliminary work was done on the accession of the Russian Federation to the Nuclear Energy Agency of the Organization for Economic Cooperation and Development (OECD/NEA). Russia

became a member of the OECD/NEA on January 1, 2013. Our country's membership in this international organization will provide access to the NEA Data Bank, contribute to bringing Russia's certification requirements for reactor technology in line with international practice, as well as create additional opportunities for the promotion of Russian nuclear power technology on the world markets.

This Annual Report of the ROSATOM State Corporation presents detailed information concerning the development of the domestic nuclear industry in the reporting year, setting out the main events and achievements of the period. Russian nuclear scientists have achieved excellent results: a significantly expanded portfolio of external orders, the production of record amounts of electricity, the initiation of promising new projects both within the country and abroad, the successful implementation of a program for the construction of new nuclear facilities in the Russian Federation.

Support for the nuclear industry has been and remains one of the state's absolute priorities. The most important areas here are the development of the nuclear weapons complex, increasing the share of nuclear generation in the country's overall energy mix, the commercialization of the Northern Sea Route, and assistance in the implementation of international projects. For example, we have the allocation of federal funds for the creation of a new atomic icebreaker. Its construction began in the reporting year at the Baltic Shipyard in St. Petersburg. I am certain that the introduction into service of a new modern icebreaker will allow us to open a new stage in the development of the Russian Arctic.

ROSATOM's most important field of activity is in radiation safety and nuclear security. In accordance with the Federal Law on Radioactive Waste Management (RW), the responsibilities of ROSATOM in the

reporting year included the creation of a National Operator of RW — the Federal State Unitary Enterprise "NO RW". This organization is to be engaged in waste disposal and avoidance of any potential environmental risks. Creating a National Operator will allow us to move from the practice of accumulating waste to its ultimate isolation, thus solving the problem of our "nuclear legacy".

2013 will see more work on the formation of a legislative framework in the field of nuclear energy, this including the regulation of the Russian Federation's nuclear weapons complex.

In conclusion, I would like to say that the production plans set out before Russian atomists in 2012 have been implemented in full. The management of ROSATOM and its constituent divisions has met all key performance indicators. The industry is showing successful and progressive development, indicating significant potential for further growth.

Chairman of the Supervisory Board of the ROSATOM State Corporation

Boris Gryzlov

In the 1920s,

The atomic nucleus was studied, and the Academy of Sciences approved the Uranium Project; the Commission on the Uranium Problem was established.

In 1949,

the First General Directorate (PGU) was set up with the Council of People's Commissars. This is considered the start of the nuclear power industry in our country.

In 1949,

the first Soviet nuclear charge was tested.

In 1953,

the first Soviet thermonuclear fusion bomb was tested. The Ministry of Medium Machine Building (Minsredmash or Sredmash) was established.

In 1954,

the first NPP in the world was launched in Obninsk.

In 1957,

the first nuclear submarine (Project K-3) was constructed.

Address by the Director General



DEAR COLLEAGUES AND PARTNERS!

You are currently holding ROSATOM's fourth annual public report, which we have prepared on our own initiative for a wide range of stakeholders. In this report, we present the results of the development of the Russian nuclear industry in 2012. Much attention is also devoted to the challenges and risks that we have faced.

Analysis of the development of the nuclear industry made in the world in 2012 showed that overall, the 'Fukushima syndrome' was overcome, and most countries aim to further maintain or expand the use of nuclear energy.

During the year, we were able to achieve significant production success. Nuclear plants have developed 177.3 bln kW/h of electricity, a record for the industry. We have the prerequisites for a noticeable increase in uranium production in the country: the Priargunsky Mining and Chemical Union opened a new mine, which has reserves of 12,800 t. This is the first new mine to open in the last 20 years. There has been a marked increase in our portfolio of foreign orders for the

next 10 years: without the HEU-LEU contract, it amounts to 66.5 bln USD (compared to 50.9 bln USD in 2011).

In 2012, we completed several major projects and began the implementation of several new ones. We launched the 4th unit of the Klininskaya NPP into commercial operation. The construction of the Ostrovetskaya NPP in the Republic of Belarus, the beginning of work in Ukraine on a plant fabricating nuclear fuel based on Russian technology; currently in the design process is work on the construction of replacement facilities at the Kursk Nuclear Power Plant-2. In China, we have entered the 'first concrete' stage in constructing the 3rd and 4th units of the Tianwan NPP.

The most important event of 2012 for the development of the Northern Sea Route and the further development of the Arctic was the beginning of work on the first, next generation, atomic icebreaker. Thanks to its double draught this vessel will be able to work not only on the Northern Sea Route, but in the mouths of the Siberian rivers. A total of three such icebreakers are to be built, something that will significantly broaden our opportunities for the transport of liquefied gas from the Yamal Peninsula.

We have made significant progress in the implementation of technological projects. Entering its final stages is the construction of the BN-800 fast-neutron reactor at the Beloyarsk station. The physical opening of this unit, set for the end of 2013, will present a milestone in the development of closed fuel cycle technology. In 2012, we took another step towards the energy of the future with our decision to build a complex complete with the experimental/demonstration reactor BREST-300 and a near-station nuclear fuel cycle.

The development of the industry R&D complex is one of our major priorities.

During the year, R&D projects received unding amounting in absolute terms to about 22.7 bln RUB, which is more than 4.8% of our revenue. Yet we do not intend to rest on our laurels, and will continue to increase this figure, thus also increasing our technological advantage. The scientific developments of Russian nuclear scientists have found a worthy reward in the reporting year, as representatives of the Sarov nuclear center were given awards by the Government of the Russian Federation in the field of science and technology for the development and implementation of petawatt power laser systems based on parametric amplification of light.

I have no doubt we will solve all the tasks assigned to us. Because at the heart of our success lies the dedicated work of hundreds of ROSATOM's employees, to whom I would like to express my sincere gratitude for their professionalism and high level of performance.



The Director General
of the ROSATOM State Corporation

Sergey Kiriyenko

In 1959,

the first nuclear-propelled icebreaker in the world, 'Lenin', was commissioned.

In the 1960-70s,

new NPPs were actively constructed to meet the needs of the economy.

In 1986,

the accident occurred at the Chernobyl NPP.

In the 1990s,

there is a period of serious stagnation in the nuclear industry, both in Russia and all over the world.

In 1992,

Minsredmash was transformed into the Ministry for Atomic Energy (Minatom), which 'inherited' about 80% of the nuclear industry enterprises of the Soviet Union.

In the late 1990s,

a nuclear renaissance began. This period was marked by adopting new programs for developing the nuclear industry in many countries.

Address by the Academician-Secretary of the Department of Nanotechnology of the Russian Academy of Sciences, President of the Kurchatov Institute National Research Centre



DEAR COLLEAGUES!

The priority theme of this report is as follows: "Managing the intellectual capital of the ROSATOM State Corporation as a factor of competitiveness in the domestic and foreign nuclear energy markets". Intellectual capital management and, in general, innovation and scientific work have always been the Russian nuclear industry's top priorities, and it is thanks to these factors, in many ways, that our country's current leading positions in the nuclear sphere were gained. Our ambitious strategic goals for global technological leadership further increase the importance of such activities.

The development of the Russian nuclear industry has come a long way, more than in any other country. The first nuclear energy in Russia was produced almost 60 years ago at the first experimental nuclear power plant in Obninsk, and today nuclear technologies are used in a variety of industries, from agriculture to the space industry, from security systems to nuclear medicine.

I am convinced that today, the development of peaceful nuclear energy is not possible without innovation, new experimental developments and an effective knowledge management system. Russian nuclear science has a rich tradition and a huge base of scientific expertise originating from the Soviet era, and it is based on this foundation that we achieve progress.

The Innovative Development Program, approved by ROSATOM's Supervisory Board in April 2011, was an important step towards achieving the company's strategic goal of global technological leadership.

The program included the implementation of several key projects. Creating a fast-neutron nuclear reactor using closed nuclear fuel cycle technologies, no doubt, has great prospects. The use of these reactors will significantly reduce the amount of nuclear fuel spent, and will make possible the disposal of radioactive waste with background radiation close to natural. From the point of view of our resource base, the involvement of uranium-238 instead of uranium-235 in the fuel cycle will allow for a hundredfold increase in the efficiency of our use of natural raw materials.

Another promising project is the WER TOI next-generation water-water nuclear reactor, which is currently undergoing certification. The use of this power reactor will provide a new level of nuclear reactor safety, as well as reduce the maintenance cost of nuclear power plants. I also have great expectations from the current international ITER project, which after much theoretical research will allow us to open the road to commercial fusion power.

Such serious research cannot be carried out without the appropriate scientific and experimental basis. The requirements of the world community to ensure safety at nuclear power plants are continuously increasing; the same should be true for nuclear research reactors, stations and plants. Ensuring high quality, world-class postreactor research requires modern equipment, mass spectrometry and elemental analysis, all of which require significant financial investments. In 2011, ROSATOM announced the launch of its project "Measures to improve the safety and efficacy of our experimental capability". This is definitely a step in the right direction, and I am pleased to see that we are getting tangible results, with which you can acquaint yourself in this report.

The complexity of the process of innovation and the high degree of competition in this area have placed additional requirements for the management of scientific activities. Throughout the world, knowledge has become a commercial product, and being at the forefront requires a well-established system for the creation, accumulation and subsequent placement of such a product on the market. To solve this problem, the State Corporation ROSATOM implements its own system of knowledge management, the main objectives of which are to provide researchers with modern tools of information, and to develop formal regulations and rules for the management and commercialization of intellectual property. I am sure that such a system would contribute to the future research and commercial success of the Corporation.

I commend ROSATOM's work in the research field in recent years, and am confident that the material and technological base of the organization, its intellectual capital, and the vector of development chosen by its management, will allow the Corporation to successfully complete all its tasks. I am also convinced that the scientists and researchers of ROSATOM will go on to introduce even more breakthrough solutions in various scientific fields in 2013.

On behalf of the entire scientific community, I would like to wish the State Corporation ROSATOM the successful completion of all ongoing projects and the creation of a sustainable innovation platform for the further development of the Russian nuclear industry.

Academician-Secretary of the Department of Nanotechnology of the Russian Academy of Sciences, President of the Kurchatov Institute National Research Center

Evgeny Velihov

In 2004,

the Federal Atomic Energy Agency was created on the basis of Minatom.

In 2006,

the Federal Target Program on the Development of Nuclear Power and Industry Complex of Russia in 2007-2010 and up to 2015 was adopted.

In 2007,

the State Atomic Energy Corporation "ROSATOM", which became the legal successor of the Federal Atomic Energy Agency, was established.

In 2008,

the Long-term (2009 - 2015) Program of ROSATOM Activities was approved.

In 2011-2012,

several breakthrough R&D and innovative projects were launched, which will change the world's nuclear industry in the near future.

INTERVIEW WITH FIRST DEPUTY DIRECTOR GENERAL FOR OPERATIONS MANAGEMENT



Alexander Lokshin, First Deputy Director General for Operations Management

Which results of the reporting year would you highlight?

During the year, we achieved growth in virtually all key performance indicators. Russian NPPs generated a record amount of 177.3 bln kW•h of electricity. This was 2.7% more than last year and 0.9% more than planned. The volume of production of natural uranium in 2012 also increased, by 7% compared to the previous year, and amounted to 7.6 thous. t. A very important indicator in terms of prospects is our portfolio of foreign orders for the next 10 years (excluding the HEU-LEU), which has reached 66.5 bln USD, which is 30.7% more than in 2011. The state defense order has been executed in full.

And the plans for the financial indicators have also been met?

Yes, in general, the financial results of the Corporation in 2012 can also be considered good. IFRS revenue increased by 2.1%. EBITDA amounted to 140.8 bln RUB, exceeding what was planned by over 11 bln RUB.

The main events of the past year — what would they be?

We have completed a number of large international projects and started new ones. In August 2012, the Buser NPP in Iran was set to 100% power. In India, the construction of the Kudankulam

NPP's first unit has been fully completed, while the second is at 95%. Work has begun in Belarus at the construction site of the Ostrovetskaya NPP's first unit. Despite the accident at the Fukushima nuclear power plant, in 2011-2012 ROSATOM managed to significantly increase its portfolio of foreign orders for the construction of nuclear power plants, confirmed either by contracts or by intergovernmental agreements. During these two years, it has grown from 11 units to 19.

In Russia, 2012 saw the 4th unit of the Kalininskaya NPP being put into operation. The construction of nine more units is underway.

For the first time since the Soviet era, a new uranium mine has been put into operation — at the Priargunsky Mining and Chemical Union (Krasnokamensk). I would like to note that the facility was built ahead of schedule and with savings of 800 mln RUB.

What new management tools are being used by the state corporation ROSATOM?

In 2012, the Corporation revised its approach to the management of operational efficiency and investment activities. We came to understand that the use of "classical" management tools has almost outlived itself, and the control and efficiency required in the near future will not be achieved through their application, which is unacceptable for a company seeking to become a global leader in technology.

In 2012, we began the formation of an operational efficiency management system focused on the lifecycles of our products and means of production, one which would allow us to take into account the special features of complex and innovative products and services. This approach should allow us to optimize the cost of ownership for a full life-cycle facility, minimize risk and manage performance on specific indicators of the complete operating and capital costs per unit of output. In addition to increasing operational efficiency, we

will be able to form new complex products and technological solutions, all understandable and attractive to customers.

Life cycle management is, in fact, a way of making decisions in the logic of integrated performance criteria from technological and economic positions. We have already initiated the implementation of pilot projects in order to then be able to quickly replicate and implement trusted mechanisms.

How do you see the future of the global nuclear industry?

Nuclear power will continue to grow, and in the medium term, the growth centers will be the most dynamically developing countries facing power shortages. I can say with confidence that the demand for nuclear power will grow. The reason for this is the increase in the planet's population and the world's GDP, which, in turn, will lead to an increase in electricity consumption.

Belgium, Sweden, Spain, Germany and Italy may have abandoned the construction of new nuclear power plants, yet most countries adhere to rigid plans for the development of nuclear energy. After a 30-year hiatus, the US intends to resume construction of nuclear power plants. A great interest in the development of nuclear energy is exhibited in Eastern Europe. Largely due to the fact that alternative power generation is too expensive, nuclear energy is Europe's cheapest and most stable source of electricity. Despite Japan's declaration following the Fukushima accident that it renounces nuclear power and will be closing down its nuclear industry by 2040, the Japanese government did not set specific limits on nuclear generation, thus making it possible to adjust the parameters of their energy strategy in the future.

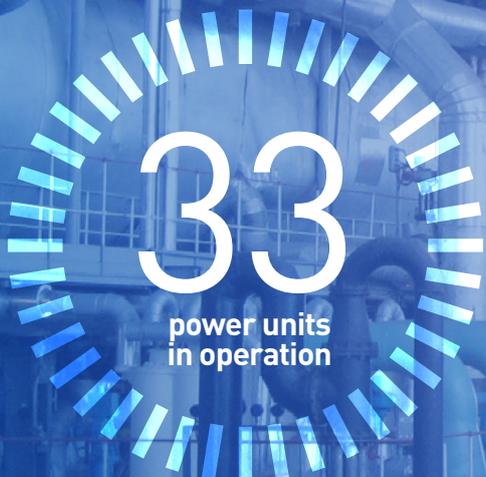
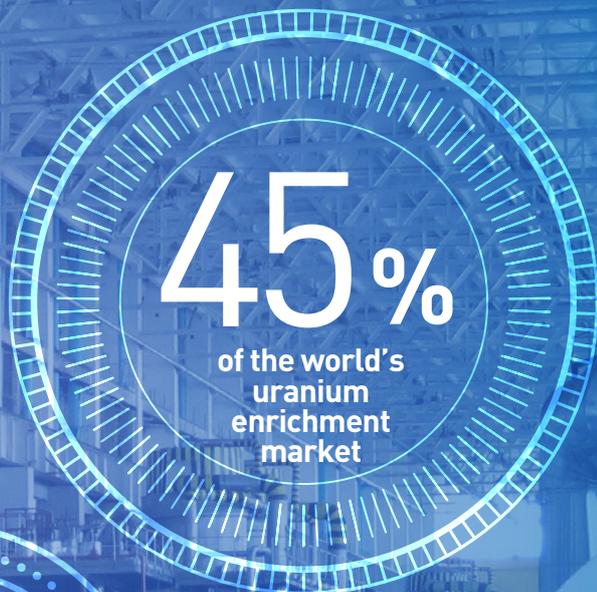
Section 1

Information about the Corporation

ROSATOM is responsible for the implementation of state policy in the field of nuclear energy and is a universal company that owns assets on all levels of the nuclear energy production chain and industry, from exploration and the production of uranium, the design and construction of nuclear power plants, engineering, the generation of heat and electricity, the conversion and enrichment of uranium products, as well as fuel fabrication, to decommissioning nuclear facilities and dealing with spent nuclear fuel and radioactive waste.

1.1. General Description of the Corporation 14

1.2. Target Markets 16



1.1. General Description of the Corporation

1.1.1. GENERAL OVERVIEW

ROSATOM Profile and Structure*

The nuclear power generation complex	The nuclear weapons complex Directorate for the nuclear weapons complex	Assuring the nuclear deterrence policy and strategic presence of Russia in the Arctic region Meeting the Russian government defense contract	22 FSUE 5 LLC 2 CJSC 8 OJSC
	The atomic icebreaker fleet FBUE Atomflot	Icebreaker navigation along the Northern Sea Route Emergency rescue operations in the Arctic ice belt	1 FSUE
	Mining division Management Company OJSC Atomredmetzoloto	Exploration, production and refining of Uranium	14 LLC 6 OJSC 8 CJSC
	Fuel division Management Company OJSC TVEL	Conversion and enrichment of Uranium Production and supply of nuclear fuel and its components for power and research reactors in Russia and overseas	51 LLC 15 CJSC 18 OJSC
	Sales and Marketing Management Company OJSC Techsnabexport	Export of services for enrichment of Uranium and Uranium products for reactors designed outside Russia	2 LLC 1 CJSC 3 OJSC
	Machine-building division Management Company OJSC Atomenergomash	Manufacturing equipment for construction of NPPs and other facilities, including facilities for non-nuclear sectors of the economy	15 LLC 12 CJSC 19 OJSC
	Power engineering division Management Company OJSC Rosenergoatom	Power generation at NPPs	24 LLC 6 CJSC 16 OJSC
	Construction outside RF Management Company OJSC NIAEP	Construction of NPPs overseas	7 LLC 3 CJSC 1 OJSC
	Construction and Engineering in RF Management Company OJSC Atomenergoproekt	Design, management and construction of NPPs and other facilities	11 OJSC
	The nuclear and radiation safety complex** Directorate for nuclear and radiation safety Department for nuclear and radiation safety	Ensuring the accident-free operation of nuclear power facilities that present potential nuclear and radiation hazards Implementation of state policy of UNF, RAW handling and S&P NRHS Solving the "legacy" problem from previous civil and defense operations in the nuclear industry Spent nuclear fuel and radioactive waste handling and decommissioning of nuclear and radiation hazardous sites	5 FSUE
	Business Development and Overseas Business Unit Management Company CJSC Rusatom Overseas	Promotion of Russian nuclear technologies on the global market	2 CJSC
	Innovation management unit Management Company CJSC Science and Innovations	Pure and applied scientific research Science and design support for the development of nuclear power generation and the nuclear industry Innovative developments, including in other sectors of the economy	5 FSUE 1 CJSC 9 OJSC 1 private institution
	Neo-generation materials Management Company OJSC NPK Chimengineering	Innovation project development in the production of chemical fibre and all-carbon composites	4 LLC 1 CJSC 1 OJSC
	Radiation Technologies Programme Management Company OJSC United Innovations Corporation	Development of products and technologies implementing nuclear power in other sectors of industry	1 LLC 1 CJSC 2 OJSC

* The list of corporate units in Appendix 7 also includes 21 foreign-based entities with various forms of incorporation and ownership.

** At the end of 2012 the Directorate of Nuclear and Radiation Safety was reorganized with the aim of separating the State objectives and business objectives in UNF, RAW handling and S&P NRHS.

The State Atomic Energy Corporation ROSATOM was established on December 18, 2007. Federal Law No. 317-FZ On the Atomic Energy Corporation ROSATOM dated December 01, 2007 regulates the status, corporate objectives and operations, functions and authority of ROSATOM State Corporation.

ROSATOM State Corporation is authorized to act on behalf of the Russian Federation and perform the obligations assumed by Russia for the peaceful use of nuclear power and enforcement of the non-proliferation of nuclear arms. ROSATOM State Corporation is responsible for implementing Russian national nuclear energy policy, and is a company with universal interests, owning stakes throughout the nuclear generation and nuclear industry chain: from geological surveying and uranium mining, to the design and construction of NPPs, machine-building, the generation of thermal and electric energy, the enrichment and conversion of uranium, the production of fuel, the decommissioning of nuclear facilities, and the utilization of used nuclear fuel (UNF) and radioactive waste (RAW).

As of December 31, 2012, the Corporation contained 37 Federal unitary state enterprises, 6 private institutions, 25 Joint Stock Companies, whose shares are owned by ROSATOM State Corporation, 16 Joint Stock Companies, over which ROSATOM State Corporation exercises shareholder rights on behalf of the Russian Government, 2 Closed Joint Stock Companies, whose shares in some part are owned by ROSATOM State Corporation. Taking into account all business entities (including those companies whose shares are fully owned by ROSATOM State Corporation; subsidiaries and equity affiliates, companies and organizations created by the Corporation or transferred to it, whose assets are owned by the Corporation; and entities over which ROSATOM State Corporation exercises shareholder rights on behalf of the Russian Government), ROSATOM State Corporation exercise control and management over more than 360 entities, which include administrative and operating entities and also auxiliary infrastructure and various non-core assets.

The Corporation's full name in the Russian language is Государственная корпорация по атомной энергии «Росатом». The Corporation's short name in the Russian language is Госкорпорация «Росатом».

The Corporation's full name in the English language is The State Atomic Energy Corporation "ROSATOM". The Corporation's short name in the English language is ROSATOM.

The Corporation's offices are located at 24, Bolshaya Ordynka St., Moscow.

The Corporation's Non-Financial Auditor is CJSC KPMG, located at 10, block C, Presnenskaya naberezhnaya, Moscow.

1.1.2. LEGAL BASIS FOR THE ACTIVITY OF THE CORPORATION

The State Atomic Energy Corporation ROSATOM was established on December 18, 2007. Federal Law No. 317-FZ On the Atomic Energy Corporation ROSATOM dated December 01, 2007 regulates the status, corporate objectives and operations, functions and authority of ROSATOM State Corporation.

 For details see the e-version of the Annual Report



Kursk NPP power house

1.2. Target Markets

Markets and Products of ROSATOM*

Markets	Value Creation Chain					Products
The natural Uranium market	Development of mineral resources	Ore Mining	Ore Processing			Natural Uranium
The market for the conversion and enrichment of Uranium	Natural Uranium	Conversion	Enrichment			Enriched Uranium Products (HFC, EUP)
The nuclear fuel market	Natural Uranium	Conversion	Enrichment	Production of nuclear fuel components	Manufacturing of TVS (fuel set)	Nuclear fuel components → TVS (fuel set)
The machine-building market	Front-end and engineering design	Manufacturing	Installation	Maintenance		Nuclear steam generating unit → Maintenance
						Equipment for power plants
The market for power generation	Operation	Sale of electricity	Power supply	Maintenance		Electric energy
						Maintenance
The market for UNF and RAW handling and shut down and preservation (S&P) of nuclear sites	Decommissioning	Collection/sorting	Processing/conditioning	Storage/burial		Decommissioning/S&P
						UNF and RAW handling
The market for radiation technologies	Front-end engineering/production design	Construction/layout	Components/equipment	Distribution/sales	Operation/maintenance	Isotope products → Medical equipment, radioactive pharmaceutical products, engineering
						Linear accelerators → Irradiation centres
						Inspection systems

* This symbol hereinafter represents indicators audited by ZAO KPMG as part of an independent certification of information related to sustainable development and integrated into the 2012 annual report of the State Corporation ROSATOM.

The Natural Uranium Market

Demand for Uranium is tied up to the electric power capacity of NPP. In 2012, the global demand for uranium went from 68,000 to 74,600 t (the growth is 6-9% per annum). By 2020, total uranium demand may increase 1.2 times reaching 84,000 t, and 95,600 t by 2030.

Total natural Uranium production worldwide in 2012 was 57,000 t, which falls below demand. The shortfall will be met by secondary source uranium (the HEU Purchase Agreement, extra-enrichment of depleted uranium hexafluoride, regenerated uranium, etc.). Assuming completion of all projects, total uranium production by 2020 is expected to reach 95,600 t, and 103,5000 t by 2030. After the HEU Purchase Agreement expires, supplies from secondary sources are expected to stabilize at 11,000-16,000 t of uranium equivalent.

The natural Uranium market is dominated by select stable leaders. At the end of 2012 these numbered: the State Corporation ROSATOM (with ~13% of global production), NAK Kazatomprom (Kazakhstan ~21%), Cameco (Canada ~15%), AREVA (France ~12%), Rio Tinto (Australia-UK ~7%), BHP-Billiton (Australia-UK ~6%), Paladin Energy (~5%). The seven largest players account for nearly 75% of total global production*.

New Uranium producing enterprises were commissioned in 2012 such as Azelik in Niger (CNNC) with an annual capacity of 700 t; in India, Andhra-Pradesh State, an underground mining and initial enrichment

plant Tummalapalle (UCIL) with an annual capacity of 210 t; the mining fields of Aulbek and Northern Kamekh (Navoiy Mining and Metallurgical Plant) have started production with ISL (drill hole in situ leaching) in Uzbekistan. Four mining plants (all ISL – drill hole in situ leaching) have reached commercial capacity level. These are Honeymoon in Australia, and Willow Creek in USA (both belong to Uranium One Inc.) and Uranium mines Irkol and Semizbai of Semizbai-U company (Kazatomprom/CNNC). Pilot mining from a uranium mine under construction, Trekkopje in Namibia, started in 2012 but AREVA suspended its further development due to lower prices for natural uranium.

Some companies continued the construction of new uranium mines and providing the situation stabilises, are planning to start production in 2013.

For details see the e-version of the Annual Report

The leaders have been actively increasing their mining base both through consolidation of the market with smaller players, and through investments in the exploration and development of new fields. By 2015, the proportion of new fields in total production may reach 10%, rising to 45% by 2030.

In the near future, the main sources of uranium will be located in Canada, Australia, Kazakhstan, Russia, and African countries.

For details see the "Mining Division" section of this Report on page 121 and in the 2012 ARMZ Annual Report

Conversion and Enrichment of the Uranium Market

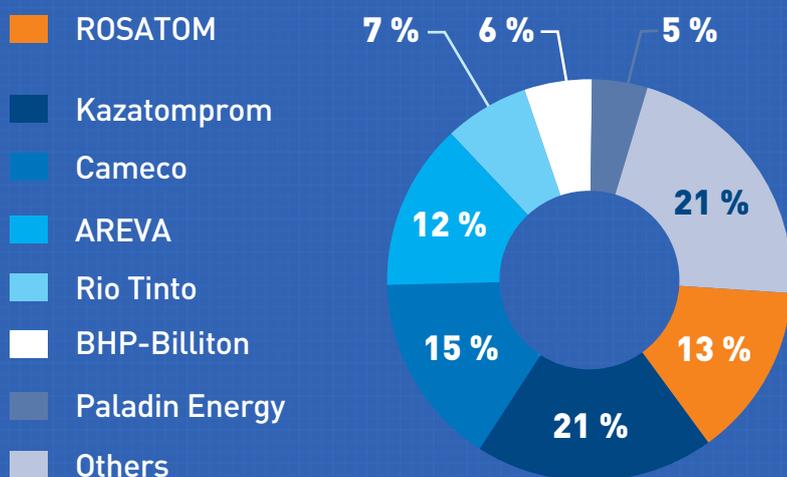
Uranium enrichment is the key part of the first stage of the nuclear fuel cycle (NFC). Products in the market are the enriched uranium product (EUP) and services for uranium enrichment, the process measured by "separative work units" (SWU).

It is estimated that in 2013 the global market for uranium enrichment will be around 48 mln SWUs and remain at the level of 2012. By 2020, demand for enrichment services may increase to 64-66 mln SWUs and to 75-85 mln SWUs by 2030.

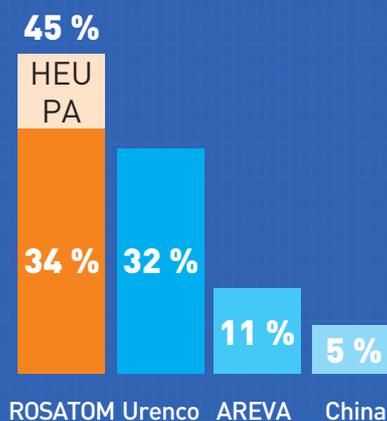
The main international suppliers of uranium enrichment services, alongside ROSATOM State Corporation are URENCO (UK, Germany, the Netherlands), AREVA (France), and USEC (USA), in total controlling about 95% of the market.

In 2012, ROSATOM provided over one third of all uranium enrichment needs for western-designed reactors, and had substantial market share in all main geographical regions. URENCO is the main competitor of ROSATOM State Corporation in the market of uranium enrichment. As of late 2012, the total annual installed capacity of URENCO was about 16. mln SWUs. By 2015 URENCO is planning to reach a target of 18 mln SWUs annual output.

The Leaders of the Natural Uranium Markets, %



Commercial Market of Uranium Enrichment in 2012



* Here and below, this symbol denotes figures that KPMG verified in the course of independent limited assurance of information on sustainable development contained in the Rosatom 2012 Annual Report.

In 2012, AREVA decommissioned George Besse I gas diffusion plant (GBI) with 10.8 mln SWUs annual capacity. Now the company has put into operation an increasing capacity gas-centrifuge plant, George Besse II (GBII), whose annual output will reach 7.5 mln SWUs by the end of 2016.

USEC has leased an American gas diffusion plant for uranium enrichment with an installed annual capacity of 8 mln SWUs, which will be closed during 2013. USEC acts as an agent to the US Federal Government in the HEU Purchase Agreement. Supplies under the HEU Purchase Agreement contract meet about 40% of the needs of all US-based NPPs and these supplies will end in 2013. Therefore USEC's pivotal project is the construction of a gas-centrifuge plant in the USA — the American Centrifuge Plant (ACP), which will have an annual capacity of 3.8 mln SWUs (at the end of 2012 the project was at the R&D stage).

ROSATOM State Corporation's share of the uranium enrichment market is 45%.

For details see the Report Section "Fuel Division" on page 123, and Annual Reports of OJSC TVEL and OJSC Technobexport for 2012.

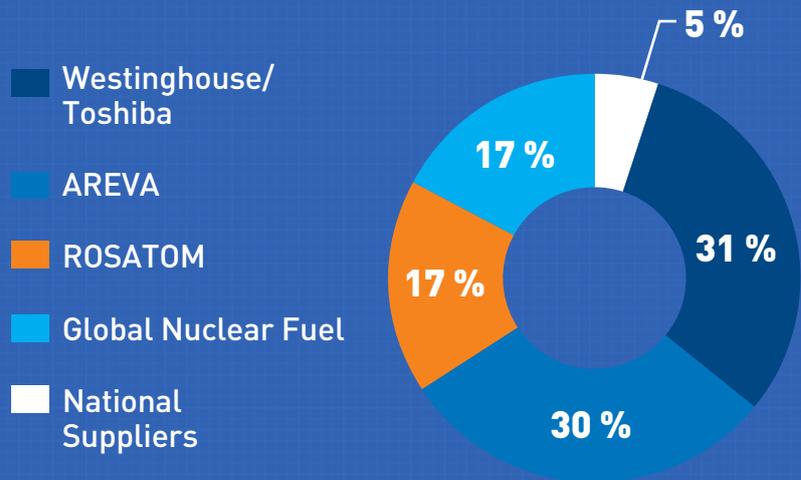
Nuclear Fuel Market

In 2012, the global market for nuclear fuel is expected to be nearly 11,000 t of heavy metal (THM), of which 8,000 THM is fuel requiring uranium enrichment (including nearly 1,000 THM of fuel for VVER reactors), and 3,000 THM fuel for heavy-water reactors. As the number of reactors in the world increases, demand for nuclear fuel production services may reach 14,700 THM in 2020 and 16,900 THM by 2030.

There are several global suppliers in the market of nuclear fuel manufacture: Westinghouse/Toshiba, AREVA, ROSATOM State Corporation and Global Nuclear Fuel.

Westinghouse manufactures nuclear fuel for nearly all types of light water reactor (LWR): PWR, BWR and VVER. The main market is the USA and

Suppliers of the market for manufacturing nuclear fuel, %



NPPs of Russian design and manufacture are supplied with 95.5% of their nuclear fuel components and sets. The share of these supplies to foreign designed NPPs is 4.5%. In total in 2012, supplies were made to 33 power units in the RF and 54 power units outside Russia. Within the total number of 67 units, 64 units are of Russian design, the other 3 are of foreign design.

Western Europe. In addition, Westinghouse is anxious to get a larger share of the VVER market.

AREVA manufactures fuel for PWR and BWR reactors, occupying about one third (30%) of the global market. The major consumers are in Western Europe.

Global Nuclear Fuel (GNF) — a joint venture of GE, Hitachi, and Toshiba — accounts for a 17% share of the market. GNF has two divisions: GNF-J (for the Japanese market) and GNF-A (for markets outside Japan). GNF manufactures nuclear fuel only for the BWR type of reactors.

ROSATOM State Corporation accounts for 17% of the market share for the manufacture of nuclear fuel (this figure is determined from the number of reactors where NF is supplied).

For details see the Report section "Fuel Division" on page 123 and Annual Report of OJSC TVEL for 2012.

The proportion of installed NPP capacity covered by fuel from Russian suppliers is 54% of the total number of reactors worldwide, with nuclear units using fuel supplied by OJSC TVEL.

Machine-Building Market

The global market for power machines was worth about 100.1 bln USD¹, in 2012, of which 66% was equipment for use in the petroleum and gas-chemicals industry, 19% was equipment for the nuclear power industry, and 15% was equipment for the heating power industry.

The global market for power machine building is expected to grow to 122 bln USD by 2020, and more than 130 bln USD by 2030. Equipment for the petroleum and gas chemicals industry will continue to account for two thirds of the market, but the share of equipment for the nuclear power industry may reach 25-30%.

For details see the Report section "Machine-building Division" and Annual Report of OJSC AEM for 2012

Generation and Sale of the Electric Power Market

WNA reported the share of the total power generation by NPPs to be around ~ 6 % of global energy supplies in 2012. There were more than 437 nuclear reactors in operation worldwide at the end of 2012, with a total installed capacity of 372 GW (excluding reactors suspended in Japan) and 64 reactors were under construction.

For details see the e-version of the Annual Report

During the year of the Report, seven power units started construction work (four in China, one each in South Korea, Russia and UAE). The number of NPPs to be built worldwide before 2030 is estimated by the WNA at 484 power units with a total installed capacity of 544 GW. The estimate is 3% lower than that in 2011.

Asian nations dominate the demand for new nuclear plants.

ROSATOM State Corporation ranks second in the world in installed capacity behind EDF in France, which has a capacity of 74 GW. The Corporation is strengthening its position in NPP construction worldwide, being the world leader in the number of NPP construction projects in its export portfolio (19 power units).

Up to year 2030 the Corporation's main competitors in export markets will remain AREVA, Toshiba-Westinghouse, and there will also be increasing competition from Chinese and Korean companies.

For details see the Report section "Electric power division" on page 127, "Engineering Production" on page 130 and the Annual Report of OJS Rosenergoatom for 2012

Handling of Radioactive Waste and Used Fuel, Decommissioning Nuclear Facilities

The market for the handling, recycling and disposal of radioactive waste was worth 6.8 bln USD in 2012. The market will grow steadily in the coming years

as numerous nuclear facilities are decommissioned, reaching a peak of a forecasted 12 bln USD in 2020. Further down the line, by 2030 the market will be reduced to ~8 bln USD as decommissioning will be slowing down. The main players on the market for the handling, recycling and disposal of radioactive waste are: ROSATOM, AREVA, Energy Solutions, URS and Washington Group International.

The handling, recycling and disposal of used nuclear fuel (UNF) is expected to remain the strongest segment in the final stage of the nuclear fuel cycle up to 2030, with an annual growth rate at a level of 4.3% for the period from 2012 to 2030. In 2012, the market was worth 4.1 bln USD. The estimated increase is up to 6 bln USD by 2020 and 8.5 bln USD by 2030. The main players in the handling, recycling and disposal of the UNF market are ROSATOM State Corporation, AREVA and INFL.

The global market for the decommissioning of nuclear facilities and facilities representing a radiation hazard was worth about 6.7 bln USD in 2012. The market will grow steadily, along with the number of reactors to be decommissioned, to reach a peak of 7.7 bln USD in 2019.

In the near future, the number of nuclear facilities for decommissioning will decrease and the market will decline to about 5.3 bln USD by 2030. The main players in the market for the decommissioning of nuclear facilities and



Control board room at the NPP

¹ Market volumes hereinafter refer to constant 2010 prices.



Novovoronezh NPP

facilities representing a radiation hazard are: ROSATOM, AREVA, Energy Solutions, URS, Washington Group International, Studsvik, CH2MHILL, and SOGEDEC.

 For details see the Report Section "The Nuclear and radiation safety complex" on page 141

The Market for Radiation Technology

The value of the global market for nuclear medicine will be 13.7 bln USD in 2012, growing to 24 bln USD by 2020 and forecast to be 43 bln USD by 2030. The main players in the market are GE, Siemens, Philips, Toshiba and Lantheus. The Russian market in 2012 was worth 0.4 bln USD and is forecast to grow more than six-fold by 2030. By 2016 the Corporation aims to have 2% of the global nuclear medicine market and 12% by 2030.

The global market for environmental protection (water treatment, waste disposal) will be worth 135 bln USD in 2012, and will increase to about 200 bln USD by 2020, and is expected to reach 300 bln USD by 2030. The main players in the market are GE, CNIM, Martin, Babcock Wilcox Volund, Doosan, and Veolia. The Russian market will be worth 5.8 bln USD in 2012, and may rise to 8.2 bln USD by 2030. The Corporation's share of the market has a strong potential to reach 0.01% by 2016 and 2% by 2030.

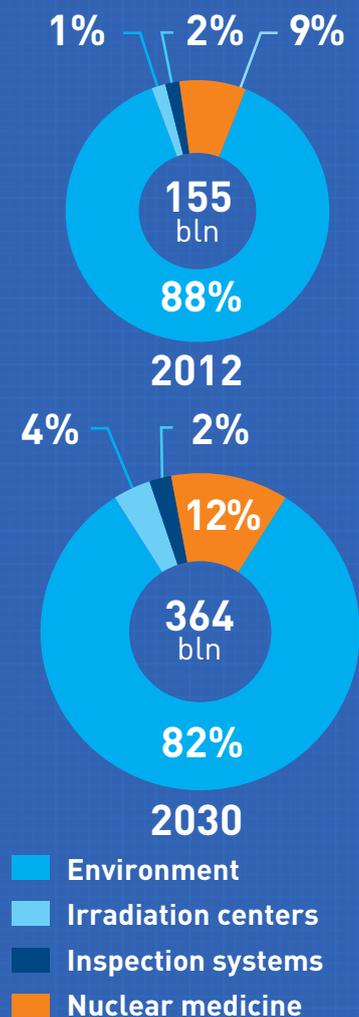
The world market for radiation treatment centers was worth 2.3 bln USD in 2012, and is expected to expand to 5 bln USD in 2020 and 13-14 bln USD by 2030. The main

players in the market are Nordion, IBA, Hungaroster and Sterigenics. The Russian market will be worth 2.9 mln USD in 2012, and forecasts are for 45 mln USD in 2020, rising to 294 mln USD by 2030. The Corporation's share of the market has a strong potential to reach 1% by 2016 and 12% by 2030.

The global market for x-ray inspection systems and non-destructive control is estimated at 2.9 bln USD in 2012, rising to 4.6 bln USD by 2020 and 7.6 bln USD by 2030. The main players in the market are Smiths Detection, Rapiscan and L3 Communication. The Russian market will be worth 47.7 mln USD in 2012, with a forecast to increase to 83 mln USD by 2020 and 126 mln USD by 2030. The Corporation's share of the market has a strong potential to reach 2% by 2016 and 6% by 2030.

 For details see the "Radiation Technologies" Report Section on page119

Forecast development of the market for global radiation technologies *



* According to information by Bain & Co, 2010

Section 2

Strategy and the Management System

In the long term, ROSATOM sees itself as a global technology leader in the nuclear industry, included in the top three players in the world in all major segments, as well as a recognized leader in the application of nuclear technologies in related markets. The target point of the Strategy is achieving global technological leadership.

2.1. Operational Strategy of ROSATOM State Corporation	22
2.2. Business Model	25
2.3. Sustainable Development Management	25
2.4. Corporate Governance	29
2.5. Managing Organizational Development	38
2.6. Risk Management	40

The strategy of ROSATOM State Corporation until 2030 includes the following indicators

25%

Share of foreign assets

40%

Share of new products

50%

Share of overseas operations

Rise in NPS output by a factor of

2.5

Top 100

in the world
Brand recognition

About 30 units

Construction of NPS abroad

2.1. Operational Strategy of ROSATOM State Corporation

2.1.1. STRATEGIC GOALS OF THE CORPORATION AND THEIR ACHIEVEMENT

The mission of ROSATOM State Corporation is to perform the tasks set by the State and related to ensuring defense capability, nuclear and radiation safety, using socially acceptable methods for nuclear power generation and achieving global technological leadership through the latest achievements in atomic and nuclear research.

In the long term, ROSATOM State Corporation aims to become a global tech-

nological leader in the nuclear industry, ranking among the three largest players in the world in all core segments and a renowned leader in terms of using nuclear technologies in related markets.

In 2011, ROSATOM developed the Strategy for the State Atomic Energy Corporation ROSATOM for the period up to 2030. The Strategy was approved by the Governing Board of the Corporation on November 24, 2011.

The Strategy sets five strategic goals for the development of Russia's civilian nuclear industry and outlines a set of eight strategic initiatives serving to achieve these goals. According to the Strategy, the main target is to achieve global technological leadership.

 For details see the e-version of the Annual Report

Strategic goals of ROSATOM State Corporation

The Operational Strategy sets five strategic goals related to the civilian nuclear industry:

- efficiently providing the Russian economy with electricity produced by NPPs,
- tackling the entire set of issues related to the "nuclear legacy" and ensuring nuclear and radiation safety,
- developing the innovative potential for further development of Russian nuclear technology and expanding the sphere of its utilization,
- strengthening the position of ROSATOM as a global player in the international market for nuclear technology and services,
- ensuring that priority tasks set by the State are fulfilled as the Corporation exercises the governmental authority in the relevant area of operations.

Implementation of the Strategy: target figures for 2030

Corporate goals		Targets for 2030
Technological leadership	expenditure on new designs	4.5 % of revenue
	share of new products	40 %
	number of international patents	15 patents per year by 2020
Global presence	share of foreign operations	50 %
	share of foreign assets	25 %
	brand recognition	the world's top 100
	share in the global market for uranium enrichment (net of HEU)	≥ 33 %
	share in the market for PWR reactor fuel	5 %
Scale	share in the market for NPP service	no less than 10 % starting from 2020
	NPP capacity	a 2.5 increase (from 24 to 60 GW)
	NPP construction abroad	about 30 units
Operational efficiency	revenue	3-5 times growth
	reducing procurement costs	by 30% by 2015 (as compared to 2011)
	reducing electricity consumption	by 25% by 2015 (as compared to 2009)
	increasing labor productivity to match the performance of global market leaders	by a factor of 3 by 2030 (from 100,000 USD to 300,000 USD per person per year in 2010 dollars)

2.1.2. STRATEGIC INITIATIVES AND THEIR IMPLEMENTATION

Based on the capacity of the total investment resources, global market conditions, competitive and technological advantages, ROSATOM State Corporation identified strategic

initiatives enabling it to achieve its strategic goals. A strategic initiative is a set of related measures aimed at considerably improving the market position of divisions of ROSATOM

State Corporation and ensuring their competitiveness in the long term.

As of December 31, 2012, the Corporation was implementing eight strategic initiatives.

Strategic initiatives of ROSATOM State Corporation

Strategic initiative	Objectives of the initiative	Results of 2012
Maintaining global leadership in the initial stage of the nuclear fuel cycle	<ul style="list-style-type: none"> expanding the uranium resource base, strengthening the position in the market for uranium enrichment, strengthening the position in the VVER fuel market and entering the fuel market for foreign-designed reactors, starting nuclear fuel production in Ukraine using Russian technologies, Upgrading separation production, replacing fifth-generation gas centrifuges with eighth-generation gas centrifuges, upgrading fuel production facilities. 	<ul style="list-style-type: none"> the program for developing JSC PIMCU in the medium term was set up; the first production line was put into operation at mine No. 8 of OJSC PIMCU; JSC Techsnabexport concluded a number of long-term contracts, including a 15-year contract with the Emirates Nuclear Energy Corporation (ENEC) for supplying EUP; long-term contracts are carried out as part of the intergovernmental HEU purchase agreement; the first batch of natural uranium was supplied to Russia from Australia under a contract with Energy Resources of Australia (Rio Tinto Group); as part of the Vostok ("East") Logistics project the Far Eastern route was opened, a pilot delivery of uranium products was made, the feasibility of supplies to the Asia-Pacific Region via the Vostochny port was proved; the Cabinet of Ministers of Ukraine approved a feasibility study for constructing a fuel assembly manufacturing plant, the site was approved, the preparation of designs started; serial production of ninth-generation gas centrifuges was launched.
Increasing the share of nuclear power generation in Russia's total power generation	<ul style="list-style-type: none"> commissioning new NPP capacities, extending the service life of existing NPPs, improving the economic efficiency of NPPs. 	<ul style="list-style-type: none"> a program aimed at increasing electricity generation in existing NPPs was implemented, a standardized optimum-performance IT-enabled power unit using the VVER technology (VVER-TOI) was created, a program aimed at extending the service life of existing NPPs is being implemented.
Global expansion of the VVER technological platform	<ul style="list-style-type: none"> expanding the VVER base abroad by constructing NPPs under EPC and BOO contracts, acquiring stakes in foreign generating assets. 	<ul style="list-style-type: none"> a portfolio of confirmed projects to build NPPs abroad was formed (19 units), the Buser NPP started operating at full capacity, a master contract was signed for the construction of the Belarusian NPP, the concrete foundations of power unit No. 3 of the Tianwan NPP were laid, measures aimed at the physical launch of the first power unit of the Kudankulam NPP started, an intergovernmental agreement to grant a state export loan for preliminary works forming part of the Ruppur NPP project was signed, a Memorandum of Strategic Cooperation with Areva was signed, 8 marketing offices were opened in Singapore, Ukraine, Czech Republic, Slovakia, Hungary, South Africa, Bulgaria and the UK.
Forming a sustainable power engineering company on an adequate scale	<ul style="list-style-type: none"> providing equipment and services for NPP construction in Russia and abroad, expanding supplies of multi-purpose equipment and services for heat generation and the petrochemical industry, supplying equipment for the wind power industry. 	<ul style="list-style-type: none"> modernization of the Energomashspetstal plant was completed, a comprehensive program to improve the performance of OJSC AEM was approved.
Entering the electricity sales market	<ul style="list-style-type: none"> entering the retail electricity distribution segment. 	<ul style="list-style-type: none"> OJSC Atomenergobyty boosted electricity sales by 22 %.

Maintaining global leadership in the last stage of the nuclear generating cycle	<ul style="list-style-type: none"> gaining competencies in the last stage of the generating cycle (handling UNF, RAW and decommissioning) in Russia, resolving the “nuclear legacy” issues and subsequently entering international markets. 	<ul style="list-style-type: none"> the federal state unitary enterprise “National Operator for Radioactive Waste Management” was established, public consultations aimed at environmental impact assessment were held on the following subject: “Construction of priority facilities for final isolation of radioactive waste, including front-end engineering design (Krasnoyarsk Territory, the Nizhne-Kansky plateau)”, the removal of used fuel assemblies of RBMK-1000 from the Leningrad NPP started, a subprogram “Ensuring Nuclear and Radiation Safety for 2016 and up to 2020” forming part of the state program “Development of the Energy Industry of the Russian Federation” was approved.
Closing the nuclear fuel cycle with the use of fast-neutron reactors	<ul style="list-style-type: none"> creating competitive fast-neutron reactors, closing the nuclear fuel cycle, developing relevant technologies and experimental production. 	<ul style="list-style-type: none"> four world-class technologies were developed, a laboratory was created to test and demonstrate RAW handling processes, the experimental facilities producing vibrocompacted MOX fuel for fast-neutron reactors (60 fuel assemblies per year) were refitted; a model of the main circulation pump was made on a scale of 1:2 to be tested using water, the capturing device for reloading fuel assemblies was tested on a bench for tests in a lead-bismuth environment, physical experiments aimed at modeling the core of SVBR-100 were completed on the BFS-2 large testing bench.
Building a third business segment related to radiation control	<ul style="list-style-type: none"> achieving the leading position in nuclear medicine, the processing of solid household and medical waste, water treatment, the operation of radiation treatment centers and security systems. 	<ul style="list-style-type: none"> Mo-99 production was launched, agreements were concluded with the administrations of the Moscow and Nizhny Novgorod Regions and the Primorsky Territory to implement the Project “Creating a network of plants for medical waste (class B) treatment”, a Memorandum of Understanding was signed with Philips to organize local manufacturing of medical equipment [SPECT, SPECT/CT, PET/CT].

2.1.3. PLANS TO IMPLEMENT STRATEGIC INITIATIVES OF ROSATOM STATE CORPORATION FOR 2013 AND IN THE MEDIUM TERM

Plans to implement strategic initiatives of ROSATOM State Corporation

Strategic initiative	2013
Maintaining global leadership in the initial stage of the nuclear fuel cycle	<ul style="list-style-type: none"> further developing uranium mining assets in Russia and abroad, implementing the medium-term program aimed at developing JSC Priargunsky Industrial Mining and OJSC Chemical Union (JSC PIMCU), improving the system of material stock accounts abroad and in Russia, developing transport and logistic infrastructure, strengthening the reputation of ROSATOM as a reliable supplier, increasing the share of contracts concluded directly with energy companies in the total portfolio of export contracts, modernizing separation facilities, implementing the TVS-Kvadrat project, modernizing fabrication facilities, ensuring that the HEU purchase agreement is performed successfully before the end of 2013, switching over to serial production of ninth-generation gas centrifuges at all plants within the fuel division, approving the design documentation for construction of the first phase of a nuclear fuel production plant using Russian technologies in Ukraine.
Increasing the share of nuclear power generation within the total power generation of Russia	<ul style="list-style-type: none"> starting to implement the WER-TOI project.
Global expansion of the VVER technological platform	<ul style="list-style-type: none"> generation start at power unit No. 1 of the Kudankulam NPP, laying the foundations of power unit No. 1 of the Belarusian NPP, laying the foundations of power unit No. 4 of the Tianwan NPP, obtaining a license for power generation and construction permits for the Akkuyu NPP, opening 7 marketing offices abroad, maintaining the volume of the portfolio of confirmed projects to build NPPs abroad at the level of 19 power units.

Strategic initiative	2013
Forming a sustainable power engineering company on an adequate scale	<ul style="list-style-type: none"> • Refining the comprehensive performance improvement program to reach the S&A level. • Implementing measures for improving sales performance, increasing the competitiveness of fuel elements, petroleum and gas-chemical products.
Entering the electricity sales market	<ul style="list-style-type: none"> • Participation of OJSC Rosenergoatom (via the electricity sales subsidiary OJSC Atomenergobyty) in competitions for the right to acquire the status of suppliers of last resort in the regions where former suppliers of last resort lost the status of wholesale market participants. • Completing the first and second stages of development of a central energy supply system for companies in the nuclear industry on the basis of OJSC Atomenergobyty.
Global leadership in the final stage of the nuclear generating cycle	<ul style="list-style-type: none"> • approving the Concept for addressing the “nuclear legacy” issues in the period up to 2050-2070.
Closing the nuclear fuel cycle with the use of fast-neutron reactors	<ul style="list-style-type: none"> • obtaining a license for installing a multi-purpose fast-neutron reactor for research purposes, • completing the construction of the laboratory complex of FSUE RFNC VNIITF to develop innovative technologies for a closed fuel cycle.
Building a third business segment related to radiation control	<ul style="list-style-type: none"> • Preparing design documentation for construction of: <ul style="list-style-type: none"> – a pilot plant for decontamination of hazardous medical waste, – a pilot radiation treatment center, – a contract Center for radiation treatment and radiation-based modification of materials in Nizhnekamsk.

2.2. Business Model

ROSATOM State Corporation defines the business model as a system ensuring value creation in the short, medium and long term and aimed at achieving strategic goals.

The business model of ROSATOM State Corporation is based on the Corporation’s mission and its long-term strategy up to 2030. The business model includes the following:

- available resources (for details, see “The Corporation’s resources” Section),
- a governance system aimed at using available resources as efficiently as possible,
- measures aimed at value creation based on transformation of available resources through the operations of the Corporation’s three core business segments,
- the outcome of measures for value creation and their contribution to the long-term increase in the Corporation’s resources, which is measured at the level of strategic targets.

Within the business model of ROSATOM State Corporation special importance is attached to the environment, as: a) the Corporation obtains part of its available resources from the environment and, moreover, the majority of the results are also related to it; b) the environment is a source of major risks and opportunities for the Corporation.

 For details on the business model, see pp. 26-27

2.3. Sustainable Development Management

2.3.1. APPROACH TO SUSTAINABLE DEVELOPMENT

The approach to sustainable development of ROSATOM State Corporation is based on the traditional sustainable development concept used internationally, as well as on a number of principles specific to the nuclear sector (e.g. nuclear and

radiation safety). Along with its own long-term sustainable development, ROSATOM State Corporation aims to contribute to tackling current global issues, such as environmental pollution, global warming, international terrorism, depletion

of natural resources, expected shortage of energy resources, etc.

The safe and reliable operation of nuclear facilities is an absolute priority of ROSATOM State Corporation. When designing and building NPPs, we implement a set of measures to ensure safety, study potential natural and industrial hazards and perform scenario analysis in terms of safety. In conformance with legislation, the Corporation carries out an obligatory assessment of the environmental impact of nuclear facilities before starting construction.

The management of ROSATOM State Corporation admits that the industry is facing environmental issues, primarily those related to the “nuclear legacy” of the past economic and defense activities, and is committed to addressing these issues as soon as possible rather than delegating this task to future generations. The companies of the Corporation make considerable efforts to eliminate the “legacy”, including the introduction of new technologies for handling RAW and UNF.

The implementation of the project “A New Technological Platform: Closed Nuclear Fuel Cycle and Fast-Neutron Reactors” will make it possible to reuse almost all recycled UNF within the nuclear fuel cycle in the future.

The Corporation attaches great importance to minimizing its environmental impact and preserving natural ecosystems. It takes measures to introduce technologies enabling a continuous reduction in emissions and discharges of harmful substances and waste generation. Nuclear power plants do not produce greenhouse gases, and on the whole ROSATOM State Corporation is an active supporter of worldwide reductions in greenhouse gas emissions and supports the transition to an economy based on renewable energy (for instance, OJSC Atomenergomash is preparing a strategic project in the area of wind power generation).

ROSIATOM State Corporation closely cooperates with the IAEA and other international organizations and takes part in initiatives aimed at strengthening nuclear non-proliferation (use of nuclear energy only for peaceful purposes).

The main goal of the Strategy of ROSATOM State Corporation is to achieve global technological leadership in the nuclear industry. The Corporation’s strategic goals include

“Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”
UN World Commission on Environment and Development



V. Putin’s visit to the Kalinin NPP

maintaining and strengthening this position by developing innovative technologies and expanding its presence on the key nuclear and related markets. The Corporation strengthens its leading positions largely through efforts to improve safety and business efficiency, environmental protection and developments for related sectors of the economy. New technologies developed by the Corporation contribute to the modernization of the Russian economy.

The main innovative project of ROSATOM State Corporation is aimed at the development and industrial application of a new technological platform (fast-neutron reactors and a transition to the closed nuclear fuel cycle), which will result in a considerable improvement in environmental safety and the economic efficiency of nuclear power generation. Another promising area is related to creating a thermonuclear reactor, which could provide a virtually inexhaustible source of energy for development over several decades.

ROSIATOM State Corporation is expanding the scope of application of nuclear technologies. Technologies for radiation control are widely used in medicine for creating high-precision diagnostic equipment and drugs, as well as for treating various diseases. Radiation technologies enable a considerable improvement in the efficiency of agriculture and food quality, contributing greatly to global efforts aimed at higher living standards worldwide. Security systems and non-destructive

control make public places safer and help to improve the performance of customs services.

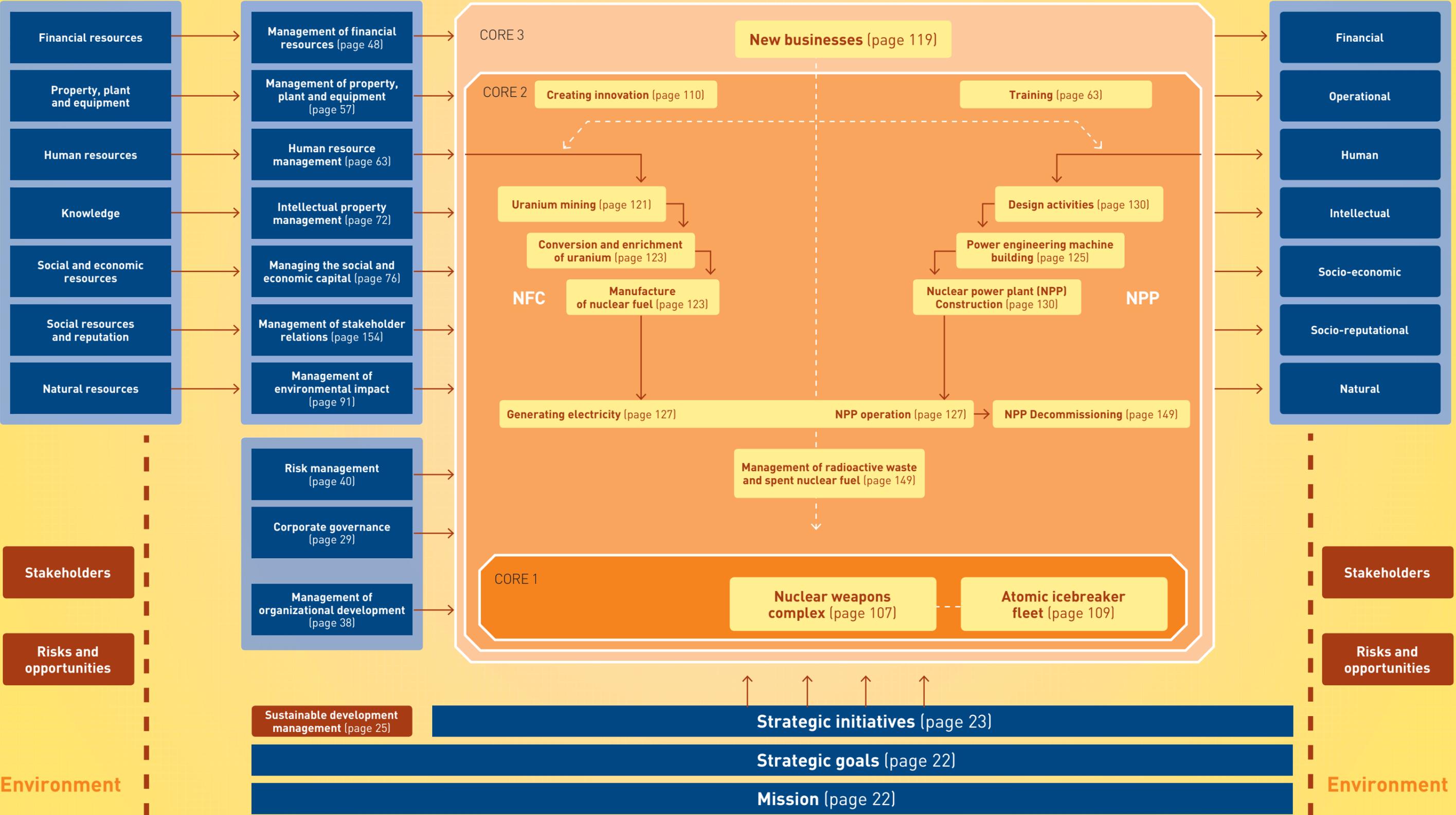
Improving operational efficiency is an important goal for the Corporation. To achieve it, it is crucial to use available resources (finances, property, plant and equipment, knowledge, etc.) more efficiently; to do so, the Corporation implements a number of projects, including: projects to improve the efficiency of finance and IT management, ROSATOM Production System, the Program aimed at energy saving and energy efficiency.

ROSIATOM State Corporation contributes greatly to the creation and fair distribution of economic value in Russia, supports Russian manufacturers and service providers, creates new jobs in the nuclear industry and related sectors.

An important task of ROSATOM State Corporation is to ensure that nuclear power generation is developed in a socially acceptable way. The Corporation’s management aims for public consensus on issues of developing nuclear power generation in Russia and worldwide to ensure a steady long-term improvement in the quality of life; to achieve this, the Corporation uses educational, information and communication projects to help various stakeholders to understand the nature and objectives of its operations.

Business model of ROSATOM State Corporation

Resources (page 46) >>>> Management system >>>> Value creation >>>> Results (page 103) >>>> Long-term capital growth



2.3.2. SUSTAINABLE DEVELOPMENT AGENDA OF ROSATOM STATE CORPORATION

As the nuclear industry is highly important to society, ROSATOM State Corporation gives priority to sustainable development of nuclear industry organizations, the Corporation itself, and contribution to sustainable development in Russia and worldwide.

Sustainable development agenda includes:

- ensuring nuclear and radiation safety and the reliability of nuclear power facilities;
- non-proliferation of nuclear arms, nuclear materials, and critical nuclear technologies;
- ensuring energy security;
- managing NPP life cycles;
- creating advanced technologies for handling RAW and UNF;
- tackling “nuclear legacy” issues;
- applying nuclear technologies in industries that have a decisive impact on living standards and life expectancy;
- making a positive social and economic impact on the regional, country and international level;
- minimizing environmental impact, including impact on the climate;
- using resources more efficiently;
- ensuring safety and safeguarding the rights of employees;
- ensuring that the development of nuclear power generation is socially acceptable.

As ROSATOM State Corporation takes a wide range of measures in various areas of its business, sustainable development issues are regulated in each area of business. Implementation of the sustainable development agenda in 2012 is described in corresponding sections of this Report.

2.4. Corporate Governance



Interview of Andrey Popov, Director for Legal Issues, Corporate Governance and Property Management, Director of the Department for Legal Issues and Corporate Governance

What are the special features of corporate governance in ROSATOM given its complicated status: it has public functions and, at the same time, conducts business?

Special features of corporate governance in ROSATOM are related to the number and diversity of organizations included in the Corporation's system rather than to these features. These organizations include enterprises (JSCs and LLCs), federal

state unitary enterprises, institutions and various non-profit organizations. Although various types of organizations objectively have specific features, we have managed to create a robust, sustainable and efficient system for managing organizations of ROSATOM State Corporation; the system is based on uniform principles, but, at the same time, the special features of our enterprises have been considered. The system is capable of implementing strategic and current plans in the industry.

What are the main achievements of the corporate governance system in 2012?

We implemented the key stage of the project on optimizing the corporate ownership structure: industry organizations sold their stakes in 63 organizations, and excessive ownership levels were reduced, which allowed us to reduce material and management costs. New principles of regulating cooperation between the State Corporation and divisions, complexes and business incubators were developed. A new procedure for preparing corporate solutions and new rules for concluding contracts were adopted in order to reduce the number of documents and the time frame for making decisions and concluding contracts.

How effective is corporate governance in ROSATOM State Corporation compared to other large Russian companies?

We have not conducted target benchmarking; however, as ROSATOM interacts with the largest Russian companies in the course of its day-to-day operations, comparison is possible, and I can say that our corporate governance system is not inferior to the systems of our colleagues and is even better than theirs in terms of certain features. For several years already, our employees have been given the 'Best Corporate Lawyer of the Year' award in various categories.

What do the main problems related to corporate governance consist of and how are they solved?

A solution to every problem can be found. For instance, we have faced the fact that the traditional governance system, which is overloaded with excessive competence of corporate governance bodies, does not meet the requirements of the modern rapidly developing business environment. To change this situation and increase the efficiency of operations, we remove all optional issues from the area of competence of collective

bodies and transfer the management of decision-making on these issues to the bodies regulating business processes. To offset the fact that the ownership structure of nuclear industry organizations does not fully comply with the target division organizational model, we give the leading organizations of divisions, complexes and incubators the rights to carry out corporate governance and manage operations at enterprises within their management areas. Thus, the State Corporation does not manage these enterprises directly.

What are the plans in the sphere of corporate governance for 2013 and for the medium term?

In 2013, as part of developing the organizational model of the nuclear industry, further development of management areas of each division, complex and business incubator is planned. We must approve the principles and mechanisms for efficient and functional management, regulate cooperation of all divisions, complexes and business incubators with the

Corporation and organizations within their management areas, and reform the procedures for dispute resolution. Furthermore, in 2013, we are about to create a single industry corporate information database.

2.4.1. GOVERNING BODIES

The governing bodies of ROSATOM State Corporation were formed in accordance with Federal Law No. 317-FZ On State Atomic Energy Corporation ROSATOM dated December 1, 2007; they include the Supervisory Board, the Chief Executive Officer and the Governing Board.

The Supervisory Board of ROSATOM State Corporation

In accordance with Article 23 of Federal Law No. 317-FZ On State Atomic Energy Corporation ROSATOM dated December 1, 2007, the Supervisory Board is the supreme governing body of ROSATOM State Corporation.

The Supervisory Board comprises nine members: eight representatives of the President and the Government of the Russian Federation and the CEO of ROSATOM State Corporation, who is a member of the Supervisory Board by

virtue of his position. No members of the Supervisory Board, except for the CEO, can be executive officers of the Corporation.

Members of the Supervisory Board and its Chairman are appointed and removed from the Board by the President of the Russian Federation. Enforcement of decisions made by the Supervisory Board is the function of the Corporation's CEO.

In 2012, the membership of the Supervisory Board underwent the following changes:

- in accordance with Decree No. 1257 of the President of the Russian Federation dated September 2, 2012, D.O. Rogozin, A.N. Klepach, A.V. Novak, Yu.P. Trutnev, Yu.V. Ushakov were appointed to the Supervisory Board, A.R. Belousov, A.V. Dvorkovich, S.E. Prikhodko, S.I. Shmatko, I.I. Shuvalov were removed from the Board;
- in accordance with Decree No. 1509 of the President of the Russian Federation dated November 10, 2012, B.V. Gryzlov was appointed Chairman of the

Supervisory Board, D.O. Rogozin was released from the post of Chairman of the Supervisory Board.

In 2012, the Board held nine meetings, including two meetings in the form of joint presence, and considered 34 issues.

Decisions made by the Supervisory Board in 2012 included approval of the following:

- The Report on financial and economic performance of ROSATOM State Corporation (key performance indicators) in 2011,
- The Annual Report of ROSATOM State Corporation for 2011,
- The unified nuclear industry procurement standard of State Atomic Energy Corporation ROSATOM,
- Key performance indicators of ROSATOM State Corporation for 2012,
- The operating budget plan of ROSATOM State Corporation for a three-year period (2012-2014).

Members of the Supervisory Board do not receive remuneration.

Membership of the Supervisory Board (as of December 31, 2012)

B.V. Gryzlov	Chairman of the Supervisory Board, permanent member of the Security Council of the Russian Federation
I.V. Borovkov	Head of Office of the Military-Industrial Committee of the Russian Federal Government, Deputy Head of Administration of the Russian Federal Government
L.I. Brycheva	Assistant to the President of the Russian Federation, Head of the State Legal Department of the President of the Russian Federation
S.V. Kirienko	Chief Executive Officer of State Atomic Energy Corporation ROSATOM
A.N. Klepach	Deputy Minister of Economic Development of the Russian Federation
A.V. Novak	Minister of Energy of the Russian Federation
Yu.P. Trutnev	Assistant to the President of the Russian Federation
Yu.V. Ushakov	Assistant to the President of the Russian Federation
Yu.V. Yakovlev	Head of the Economic Security Department of the Federal Security Service of the Russian Federation

The Chief Executive Officer of ROSATOM State Corporation

The Chief Executive Officer is the sole executive head of ROSATOM State Corporation managing its day-to-day operation. The Chief Executive Officer is appointed and removed by the President of the Russian Federation based on the Proposal of the Prime Minister of the Russian Federation. In accordance with Decree No. 1663 of the President of the Russian Federation "On the Chief Executive Officer of State Atomic Energy Corporation ROSATOM" dated December 12, 2007, Sergey Kirienko was appointed Chief Executive Officer of ROSATOM State Corporation.

The Governing Board of ROSATOM State Corporation

The Governing Board of the Corporation is its collective executive body; it is headed by the Corporation's CEO, who is a member of the Governing Board by virtue of his position. Other members of the Governing Board permanently work for the Corporation or are employees of companies managed by ROSATOM State Corporation; they are appointed by the Supervisory Board based on the proposal of the Corporation's CEO. Criteria for appointing members of the Governing Board of ROSATOM State Corporation are stipulated in Federal Law No. 317-FZ On State Atomic Energy Corporation ROSATOM dated December 1, 2007.

Members of the Governing Board receive no remuneration for serving on the Board. Information on the income of members of the Governing Board is available [on the Corporation's website](#).

Enforcement of the decisions of the Governing Board is the function of the CEO's Secretariat.

During the reporting year the membership of the Governing Board underwent the following changes: V.L. Zhivov, S.A. Obozov, Yu.A. Olenin, E.V. Romanov, K.I. Denisov, A.V. Nikipelov were appointed to the Governing Board; E.A. Sofin, S.V. Budylin were removed from the Board.

The profiles of members of the Governing Board can be found [on the Corporation's website](#).

In 2012, the Governing Board held 49 meetings, including seven meetings in the form of joint presence, and 42 meetings by absentee voting. A total of 365 issues were considered.

In 2012, the Governing Board of ROSATOM State Corporation considered and approved:

- Key performance indicators of ROSATOM State Corporation for 2012;
- The Policy of ROSATOM State Corporation on Industrial Safety. Employees of the Corporation can participate in the work of the governing bodies of ROSATOM State Corporation by proposing issues to be considered by the governing bodies under the established procedure.

The Audit Committee

The Audit Committee of ROSATOM State Corporation supervises the Corporation's financial and business operations.

Membership of the Audit Committee (as of December 31, 2012)

Membership of the Governing Board (as of December 31, 2012)

S.V. Kirienko	Chief Executive Officer of ROSATOM State Corporation, Chairman of the Governing Board
I.M. Kamenskikh	First Deputy CEO, Head of the Directorate for the Nuclear Weapons Complex
A.M. Lokshin	First Deputy CEO for Operational Management
N.I. Solomon	First Deputy CEO for Corporate Functions, Chief Financial Officer
K.I. Denisov	Deputy CEO for security
T.L. Elfimova	Deputy CEO for Government Functions and Budget Process, State Secretary
K.B. Komarov	Deputy CEO for Development and International Business
V.A. Pershukov	Deputy CEO, Director of the Unit for Innovation Management
N.N. Spassky	Deputy CEO for International Business
O.V. Kryukov	Director for Government Policy on RAW, UNF and decommissioning of facilities that represent nuclear and radiation hazards
S.A. Obozov	Director for ROSATOM Production System Implementation
V.L. Zhivov	Chairman of the Board of Directors of ARMZ Uranium Holding Co. (JSC Atomredmetzoloto)
A.V. Nikipelov	CEO of OJSC Atomenergomash
Yu.A. Olenin	President of OJSC TVEL
E.V. Romanov	CEO of OJSC Rosenergoatom

A.G. Siluanov	Minister of Finance of the Russian Federation, Chairman of the Audit Committee
R.E. Artyukhin	Head of the Russian Federal Treasury
V.N. Zobov	Head of the Department for the Defense Industry of the Russian Federal Government
A.A. Kaulbars	Director of the Department of Budget Policy for National Defense and Law Enforcement and for Federal Government Defense Contracts at the Russian Ministry of Finance
V.L. Somov	Head of the Sixth Office of the 12th Central Administration of the Ministry of Defense of the Russian Federation

Panels, councils and committees of the governing bodies

In 2012, ROSATOM State Corporation had over 50 permanent panels, councils and committees affiliated with its governing bodies.

Key standing collective governing bodies

Committee	Chairman
Strategic Committee	S. Kirienko, Chief Executive Officer of State Atomic Energy Corporation ROSATOM
Operations Committee	S. Kirienko, Chief Executive Officer of State Atomic Energy Corporation ROSATOM
Public Council of ROSATOM	S. Kirienko, Chief Executive Officer of State Atomic Energy Corporation ROSATOM
Council for Operating Transparency of ROSATOM State Corporation	S. Kirienko, Chief Executive Officer of State Atomic Energy Corporation ROSATOM
HR and Remuneration Committee of the Governing Board of State Corporation ROSATOM	S. Kirienko, Chief Executive Officer of State Atomic Energy Corporation ROSATOM
Budget Committee	N. Solomon, First Deputy CEO for Corporate Functions and Chief Financial Director
Investment Committee	A. Lokshin, First Deputy CEO for Operations Management
Globalization Committee	K. Komarov, Deputy CEO for International Business and Development
Public Reporting Committee of State Corporation ROSATOM	K. Komarov, Deputy CEO for International Business and Development
Science and Engineering Council	N. Laverov, Academician and Vice President of the Russian Academy of Sciences

2.4.2. RESULTS ACHIEVED IN 2012 IN THE SPHERE OF CORPORATE GOVERNANCE AND LEGAL SUPPORT

In 2012, the key corporate governance objectives included the following:

- developing regulations on corporate governance and legal support processes,
- creating a database of pro forma contracts,
- replicating legal aspects of the unified industry document management system,
- accelerating decision-making by standardizing and enforcing coordination procedures for administrative documents and contracts and the procedure for corporate decision-making,
- eliminating redundant ownership levels and inactive units within ROSATOM State Corporation,
- updating regulations on cooperation with divisions,
- registering the trade marks of ROSATOM State Corporation in Russia and abroad.

Changes in the corporate structure

In 2012, the Managing Council for Equity Transactions held 29 meetings and made 55 decisions.

Key changes in the corporate structure:

- stakes in the authorized share capital of TriAlphaEnergyInc. (USA), which conducts research on controlled nuclear fusion, a joint venture of OJSC Atomenergoprom and the Fund for Infrastructure and Educational Programs [OJSC RUSNANO] — LLC RR-Energy;
- OJSC ARMZ acquired shares of CJSC First Ore-Mining Company, which holds a license for geological exploration in the basin of the Bezmyannaya River on the Novaya Zemlya Archipelago (the Pavlovskoye lead-zinc deposit);
- a 10 % stake in the authorized share capital of OJSC IUEC was transferred to CJSC Haykakan Atomayin Electrakayan (Armenian NPP) under the Intergovernmental Agreement between the Government of the Russian Federation, the Government of the Republic of Kazakhstan and the Government of the Republic of Armenia on participation of the Authorized Organization of the Republic of Armenia in the operations of the International Uranium Enrichment Center;
- ROSATOM State Corporation created a private institution, the Industry Center for Capital Construction;
- ROSATOM State Corporation created a private institution, the Innovation and Technology Center of the Proryv (Breakthrough) Project;
- the Corporate Academy of ROSATOM State Corporation, an autonomous non-profit organization, was created.

Development of the corporate governance system and organization of legal support

As part of the development of the corporate governance system and organization of legal support, in 2012 the Corporation:

- implemented the main stage of a project to optimize the corporate ownership structure of ROSATOM State Corporation, which involved selling the stock held by the industry organizations in 63 companies;
- developed regulations on 100 % of legal support and corporate governance processes (this included approving the procedure for preparing corporate documents, which makes it possible to streamline document management and optimize the procedure for

- corporate decision-making, adopting methodological guidelines on allocating federal budget funds to state-funded organizations through additional issues; adopting documents regulating public disclosure of information and the procedure for accessing and using insider information);
- updated the Unified Industry Regulations on ensuring legal protection and keeping records of intellectual property;
- approved new principles of regulating the Corporation's cooperation with divisions, holding companies, business incubators;
- implemented the decisions of the board managing the project to create a unified industry document management system to replicate legal aspects of the Unified Industry document management system,
- optimized the procedure for approving contracts and the procedure for approving orders;
- formed an industry-level database of pro forma contracts;
- ensured disclosure of beneficiaries;
- made amendments to documents

- regulating the measures taken by structural divisions and organizations of the Corporation to develop and enact draft delegated legislation;
- updated pro forma Government contracts by making amendments to clauses on intellectual property to meet new conditions and requirements imposed by delegated legislation adopted by the government of the Russian Federation;
- submitted 204 applications for issuing

documents (patents, certificates) to protect intellectual assets created in the course of work financed from the budget, the rights for which belong to the Russian Federation, and obtained 158 documents (patents, certificates) to protect intellectual assets created in the course of work financed from the budget, the rights for which belong to the Russian Federation.

The number of laws and regulations adopted

	Laws enacted by the President and the government of the Russian Federation concerning the Corporation's area of business	Regulations of the Corporation registered by the Ministry of Justice of the Russian Federation
2012	50	13
2011	46	14
2010	61	13

2.4.3. PLANS FOR 2013 AND THE MID-TERM PERIOD

In 2013, the Corporation plans to:

- approve principles and mechanisms of corporate and functional governance, approve regulations on cooperation with all complexes, business incubators, and to develop regulations on cooperation of all divisions, complexes and business incubators with organizations they manage;
- ensure that rules for reducing bureaucracy are integrated in the process of cooperation between organizations in the industry, to implement a unified industry document management system in the sphere of approving contracts, orders, minutes;
- continue the rollout of automated processes across ROSATOM State Corporation as part of the regulation of legal support and corporate governance processes;
- complete the corporatization of FSUEs in accordance with Decree No. 738 of the Government of the Russian Federation dated July 19, 2012;
- ensure legal protection abroad and register the Corporation's trademark in three partner countries in 2013.



2.4.4. INTERNAL CONTROL SYSTEM

The Internal Control System (ICS) of ROSATOM State Corporation is designed to ensure that the Corporation achieves its strategic goals, to improve the efficiency of corporate and financial governance, and to ensure uniform control of the Russian nuclear industry.

As of December 31, 2012, the industry-level vertical system of dedicated internal control bodies (DICB) comprised of 33 organizations of the Corporation.

Main Results in 2012

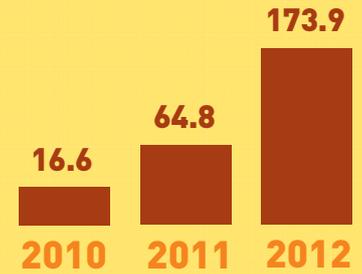
- the restructuring of the Internal Control and Audit Department (ICAD) was completed;

- DICB conducted 586 audits and 107 annual inspections in S&A (I 6.1.9.1.) (overall, 139 [29 %] organizations of the Corporation were audited);
- stricter sanctions are imposed for violations: in 2012 sanctions, including administrative ones, were used against 293 persons, five senior managers were dismissed;
- a mechanism was created for dealing with identified violations and failures.

Audit materials in 2012 demonstrate that the number of violations in the course of business operations is declining steadily: the number of violations identified by DICB decreased by 7 %: from 2,509 instances in 2011 to 2,319 instances in 2012. The reduction in the number of violations of financial and business discipline totaled 14 % in monetary terms.

In 2012, governmental regulatory and supervisory bodies, including the Accounts

Savings from the decisions of the Central Arbitration Committee, mln RUB



Chamber of the Russian Federation, found no instances of embezzlement.

ICS performance evaluation

In the course of operational monitoring of the financial management quality for the nine months of 2012, the Russian Ministry of Finance gave the ICS of ROSATOM State Corporation a good mark: all aspects of audit and control scored 100 points, which is the highest mark.

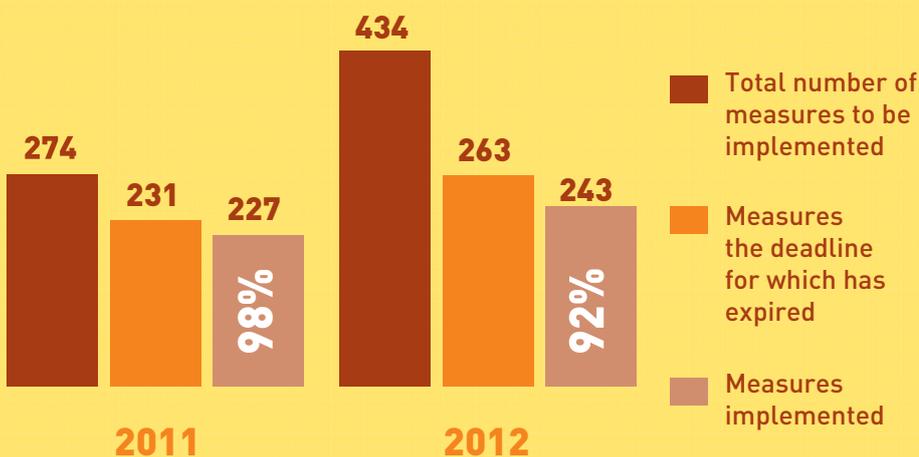
For details see the e-version of the Annual Report

The result of internal performance evaluation of the ICAD made by the Corporation's senior management (78% of those surveyed) shows that the impact of the ICAD on the transparency of the management system is considered to be high.

For details see the e-version of the Annual Report

In October 2012 Arbitration Committees had been formed in the Power Engineering and Fuel Divisions

Implementation of corrective measures based on the results of DICB audits



2.4.5. ASSET PROTECTION SYSTEM

To combat corruption efficiently, the Corporation created the Asset Protection System.

Objectives of the System:

- contributing to the implementation of the policy of the Russian Government by the Corporation and its organizations in the sphere of economic security and prevention of corruption;

Stakeholder control

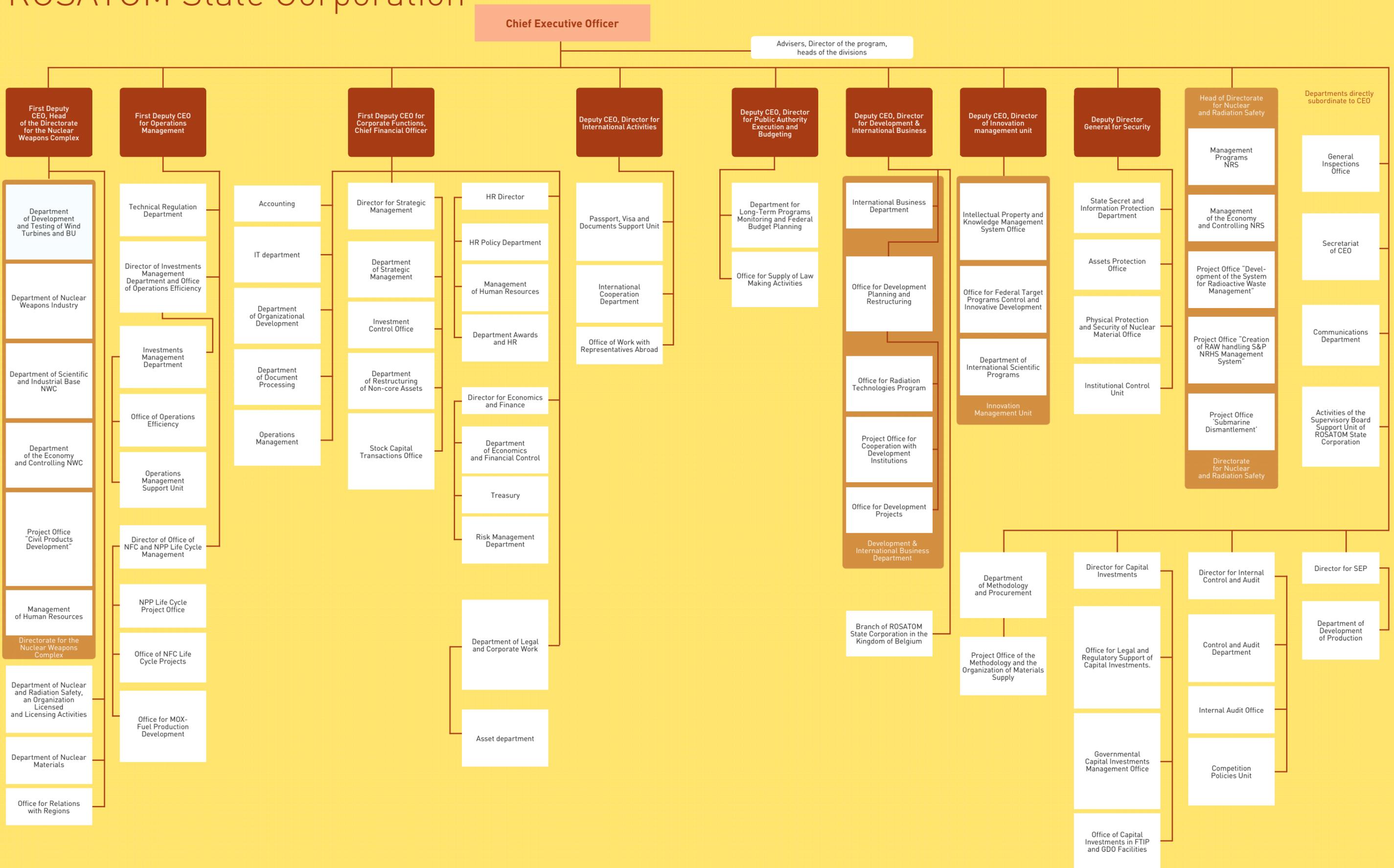
In 2012, the Central Arbitration Committee and arbitration committees in divisions examined 829 claims made by suppliers about violations of the Unified Industry Procurement Standard. 297 claims were considered valid (54 % of the total number of claims examined).

In 2012, the work of the Central Arbitration Committee resulted in savings totaling 173.9 mln RUB.

For details, see the section "Procurement management" on page 61

- identifying, analyzing and eliminating factors posing threats to economic security and assets of the Corporation and its organizations;
- monitoring the use of assets of the Corporation and its organizations;

Organizational structure of ROSATOM State Corporation



- participating in the development of draft regulations of the Corporation aimed at preventing threats to economic security and assets of the Corporation;
- taking measures to protect the Corporation and its organizations against corruption and other violations, illegal actions, including the sphere of organizing procurement, performing works and providing services for the Corporation, and managing federal property and the Corporation's property.

The Corporation introduced a system for monitoring, controlling and analyzing incidents related to the Corporation's assets; the system enables continuous matching [cross-match analysis] of data on contracts and beneficiaries with data on senior managers.

Results in 2012

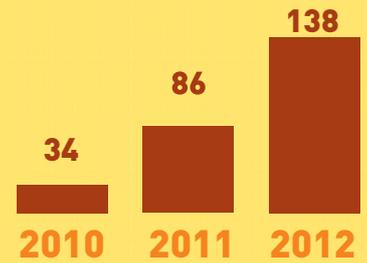
- an Integrated Program for Preventing Corruption and Embezzlement in the Nuclear Industry was introduced,

- the number and headcount of asset protection units was increasing continually;
- as of December 31, 2012, the industry asset protection system included 62 organizations (where the Corporation created asset protection units and organized functional management). Currently, asset protection units control about 80 % of the total volume of procurement in the industry,
- 69 % of employees of asset protection units underwent training in anti-corruption policies and procedures adopted by ROSATOM State Corporation.

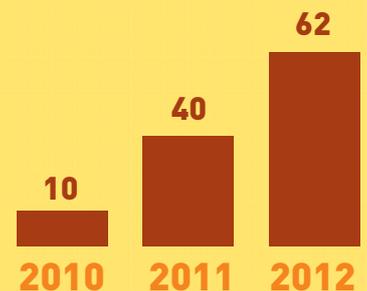
Hotline

The total number of messages in 2012 increased by 58% compared to the previous year. The number of messages from industry suppliers increased 3.5 fold. The share of anonymous reports decreased by 13%. Security checks confirmed 39% of the messages.

The headcount of asset protection units, persons

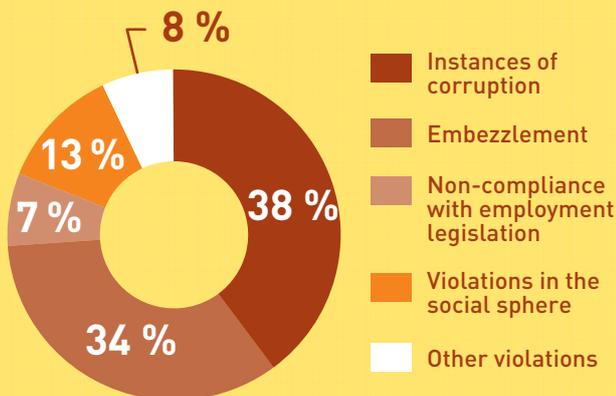


The number of asset protection units

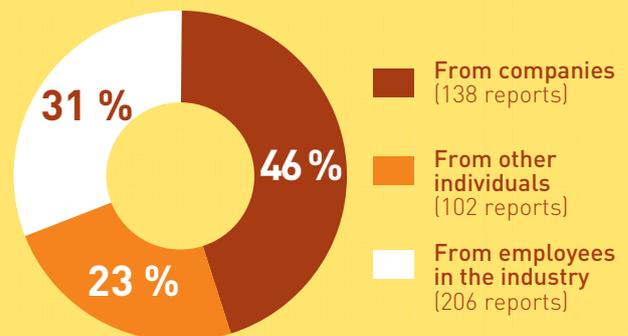


Characteristics of reports made via the hotline

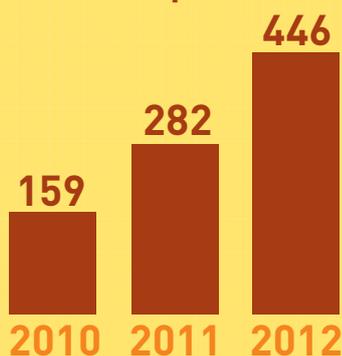
Subjects of reports



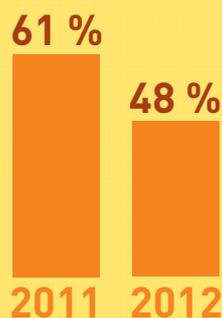
Types of reports



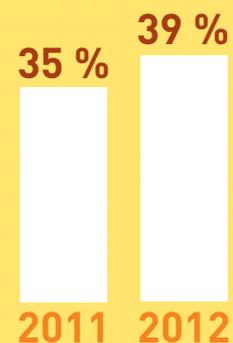
Increase in the number of reports



Reduction in the number of anonymous reports



Increase in the number of confirmed reports



Measures to identify affiliations, conflicts of interest and other violations in 2012

- 6,949 earnings certificates were received and analyzed (including 1,391 certificates for senior executives, 5,558 certificates for their relatives);
- 72,814 contracts were analyzed,
- 9 contracts were terminated,
- 19,494 counterparties were audited,
- 19 senior executives were dismissed,
- the option of concluding contracts without disclosing information on beneficiaries was completely eliminated.

In 2012, 11 subdivisions (business units) of the Corporation were analyzed for risks related to corruption.

Cooperation with law enforcement agencies

The Corporation signed framework agreements on cooperation with the Ministry of Internal Affairs of the Russian Federation and the Federal Financial Monitoring Service on combating corruption and embezzlement. The cooperation enabled inspections to be conducted more rapidly, preventing violations related to conflicts of interest more efficiently, making tendering procedures more competitive, and ensured transparency in the sphere of recruitment, contracts and corporate activities.

In 2012, ROSATOM State Corporation submitted 14 reports on identified viola-

tions to law enforcement agencies on its own initiative (12 reports in 2011). These materials prompted the investigation of four criminal cases • (three cases in 2011).

Plans for 2013 and the med-term

Measures to protect assets are planned based on the objectives set by the laws and regulations of the President and the Government of the Russian Federation and instructions from the CEO of ROSATOM State Corporation, as well as the Integrated Program to Combat Corruption and Embezzlement in the Nuclear Industry, which is a set of administrative, economic, legal and HR measures aimed at reducing the number of instances of corruption and other violations.

2.5. Managing Organizational Development



Evgenia Gorbunova, Director of the Department for Organizational Development

What are the main priorities in the sphere of the Corporation's organizational development in relation to achieving the strategic goal of becoming a global leader?

Priorities in the sphere of organizational development always depend on the strategy. It is the strategy that sets the requirements both for the governance

model and the list of priority tasks. Therefore, almost all the projects that we have implemented during the last two years are aimed at global leadership. We have identified the markets which the Corporation should penetrate in the future in accordance with this strategy. Now our task is to clearly and unambiguously allocate responsibility for achieving the goals for each market, to complete the consolidation of assets and to refine the system for managerial decision-making. For instance, we have started a business in the market for services related to RAW recycling and UNF handling.

What events were crucial for organizational development in 2012?

Last year, our main task was to implement decisions made earlier as part of large-scale projects to form a governance model. For instance, to develop a business in the sphere of managing the construction of complex facilities, we set up a global engineering company based on NIAEP and ASE and identified the assets that it will manage.

We created new industry functions in the areas of intersectoral integration. For instance, we separated industry functions related to managing the lifecycles of fuel and NPPs and managing operating efficiency.

Does the Corporation face any serious problems in the sphere of organizational development?

We have created a target image of the industry, i.e. the scope, the state that the civilian nuclear industry needs to reach in order to fulfill all its strategic objectives. But determining the direction of development is only part of the job. Now we have to translate abstract ideas into specific solutions. To do so, we need to make considerable efforts aimed at assessing and speeding up the process of making complex managerial decisions. Currently, this is one of our main problems: we do the right things and we do important things, but given the tough competition, we often do them too slowly. But it is the speed of managerial decision-making that the efficiency and competitiveness of the industry depend on.

2.5.1. KEY ORGANIZATIONAL DEVELOPMENT OBJECTIVES IN 2012

In 2012, key measures in the sphere of organizational development included the following:

- reforming the management system to meet strategic requirements,
- creating an infrastructure for efficient process regulation,
- making changes to the Corporation's organizational structure in line with changes in the management system,
- developing management technologies,
- structuring the governance model of the civilian nuclear industry.

2.5.2. RESULTS IN 2012

Reforming the management system to meet the requirements of the Corporation's strategy.

Results achieved in the reporting period:

- decisions were made on assigning roles in the course of NPP construction and proposals were formulated concerning the management of the construction of complex engineering facilities abroad. One of the decisions was to form a global engineering company based on OJSC NIAEP and CJSC Atomstroyexport to implement construction projects abroad;
- a decision was made to establish and develop the business related to the back end of the nuclear cycle. The key areas that the Corporation plans to develop include: providing services related to RAW and UNF handling and decommissioning of facilities that represent nuclear and radiation hazards;
- proposals were formulated concerning the management of lifecycles of key nuclear facilities: the nuclear fuel cycle and NPPs. Within this area, the integrating function "Managing the NFC and NPP lifecycle" was singled out.

Changes in the organizational structure and the supervision system of ROSATOM State Corporation

- the Directorate for the Nuclear Energy Complex was reorganized,
- the position of First Deputy CEO for Operational Management was created to improve operating efficiency,
- structural subdivisions were formed to manage operating efficiency, investing activity, NFC and NPP lifecycles and technical regulation;
- the organizational structure of capital construction divisions was established, the position of Director for Capital Investment was introduced;
- it was decided to reorganize the Directorate for Nuclear and Radiation Safety and to separate governmental and business tasks related to RAW, UNF and decommissioning of facilities that represent nuclear and radiation hazards within the Directorate;
- the division for government policy on RAW, UNF and decommissioning of facilities that represent nuclear and radiation hazards was created, business tasks were delegated to the incubator for the back end of the

nuclear cycle, the position of Director for Government Policy on RAW, UNF and decommissioning of facilities that represent nuclear and radiation hazards was created.

Creating the infrastructure for efficient regulation

As part of introducing the process model and developing process management tools, in 2012 the Corporation developed regulations and methodological guidelines. Industry standards were developed for areas that require regulation in order to organize operations appropriately.

In December 2012 a new version of the Regulations on the System of Regulating Documents and Methodological Guidelines was approved. A number of amendments were made to the Regulations to improve the efficiency of industry regulation and to streamline document management.

Developing management technologies

In 2012, the Corporation continued taking measures to raise awareness and develop skills related to using process management tools. This involved:

- holding the second industry conference on developing the industry's management system; the discussion focused on the organizational model of the industry and the logic of its implementation;
- workshops on the management structure and tools of the nuclear industry were held and distance education programs were developed;
- a pool of industry experts and methodologists was formed; specialized club meetings were held to discuss the most important issues of developing the management system;
- an industry management glossary was compiled.

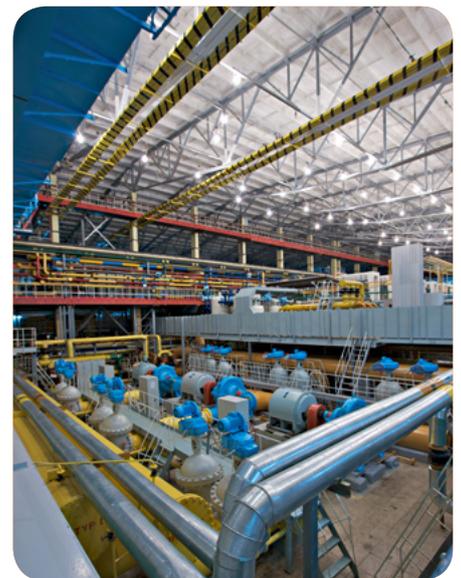
Structuring the governance model of the civilian nuclear industry

By the end of 2012 the industry's government models had been developed. As a result, the process model was updated and the organizational model of the civilian nuclear industry was approved.

 For details see the e-version of the Annual Report

2.5.3. PLANS FOR 2013 AND THE MID-TERM PERIOD

- improving the management system of ROSATOM State Corporation by delegating authority and allocating responsibility;
- developing the decision-making system, speeding up managerial decision-making;
- ensuring functional cooperation between the Corporation and its divisions, incubators and complexes;
- implementing projects aimed at optimizing the governance model in priority areas requiring coordination between various functions;
- implementing projects aimed at introducing the organizational model of the civilian nuclear industry;
- communication and developing management technologies.



2.6. Risk Management



Tatyana Fokina, Head of Risk Management Department

Are there any significant risks to the implementation of the Corporation's strategy? How does the Corporation manage them?

Certainly, there are risks related to the environment and the situation within the Corporation which might affect the implementation of the strategy. External risks include, for instance, a risk of a decrease in electricity consumption and reduction of available debt financing due to the global economic crisis. Another example is tougher competition in external markets for goods and services. As for internal risks, I would mention the risk of a potential shortage of qualified employees.

ROSATOM can reduce external risks to a certain extent, but obviously, its possibilities to do so are always limited. The management regularly monitors and assesses these risks, and the assessment is always taken into account in the course of strategic planning and decision-making. Take, for example,

the risk that the development of the nuclear power generation industry will become less acceptable to society. It is well-known that any accident at nuclear facilities makes the development of the nuclear power generation industry much less acceptable to society, regardless of what country the accident happened in. The most recent example of this risk event is the accident at a NPP in Japan. Obviously, the Corporation can directly manage this risk only at its own facilities. As for its environment, ROSATOM can make efforts to prevent risk events of this kind, for instance, by setting stricter international safety standards. Meanwhile, ROSATOM State Corporation makes every effort to minimize this risk at its own facilities: it imposes stricter safety requirements, including facilities under construction and those that are being designed, and requirements for the corporate safety culture as a whole; the Corporation ensures the transparency of its operations, etc.

What are the main risks related to managing the Corporation's resources?

Each type of resource contributes to value creation and to achieving strategic goals; and certainly, all of them entail certain risks. For instance, finances are associated with currency, credit, interest rate and liquidity risks. Human resources involve what we classify as employee risks. As for property, plant and equipment, there are production and technical risks, etc.

I would like to emphasize that risk management processes should be integrated into management processes as fully as possible, and risk management itself is, first

and foremost, management activity aimed at reducing risks, i.e. essentially this is day-to-day work of the management at various levels of the management system.

What are the priority areas for risk management? What improvements will be made to the corporate risk management system (CRMS)?

In the near future, we intend to integrate the CRMS (both on the level of the Corporation and on the level of organizations) into planning and decision-making processes related to strategic, investment, budget decisions, etc. Obviously, the sooner we start taking measures for managing risks, the stronger impact they make. Therefore, integration of the CRMS into work processes at the planning stage rather than deferring it is the most efficient option which contributes more to achieving the Corporation's goals.

Later, as the organizational structure is formed, risk management processes will be developed in ROSATOM's divisions. As each division focuses on a certain type of operations, such as uranium production, engineering, etc., each of them faces their specific risks. This special nature of risks should be taken into account in divisional risk management.

Another task for the near future is to improve the system of key risk indicators. Integration of these indicators into the KPI monitoring system should ensure a high quality of risk monitoring and enable the prompt adjustment of approaches to managing these risks.

2.6.1. CORPORATE RISK MANAGEMENT SYSTEM

The Corporation and its organizations started creating the Corporate Risk Management system (CRMS) in 2010. To date, the Risk Management Policy and regulations and methodological guidelines have been put into place; the organizational structure of the CRMS has been formed at the level of the Corporation and its divisions; the Corporation's readiness for risk has been assessed; the CRMS is being integrated with planning processes.

Results in 2012

- the organizational structure was formed and corporate risk management processes were introduced at OJSC TVEL and OJSC ARMZ;
- the methodology for analyzing risks related to strategic initiatives was developed;
- the methodology for assessing the level of risk of investment projects and industry-level methodological guidelines for risk management as part of NPP construction projects were developed;
- reputational risk factors were identified, their owners were appointed, the Stan-

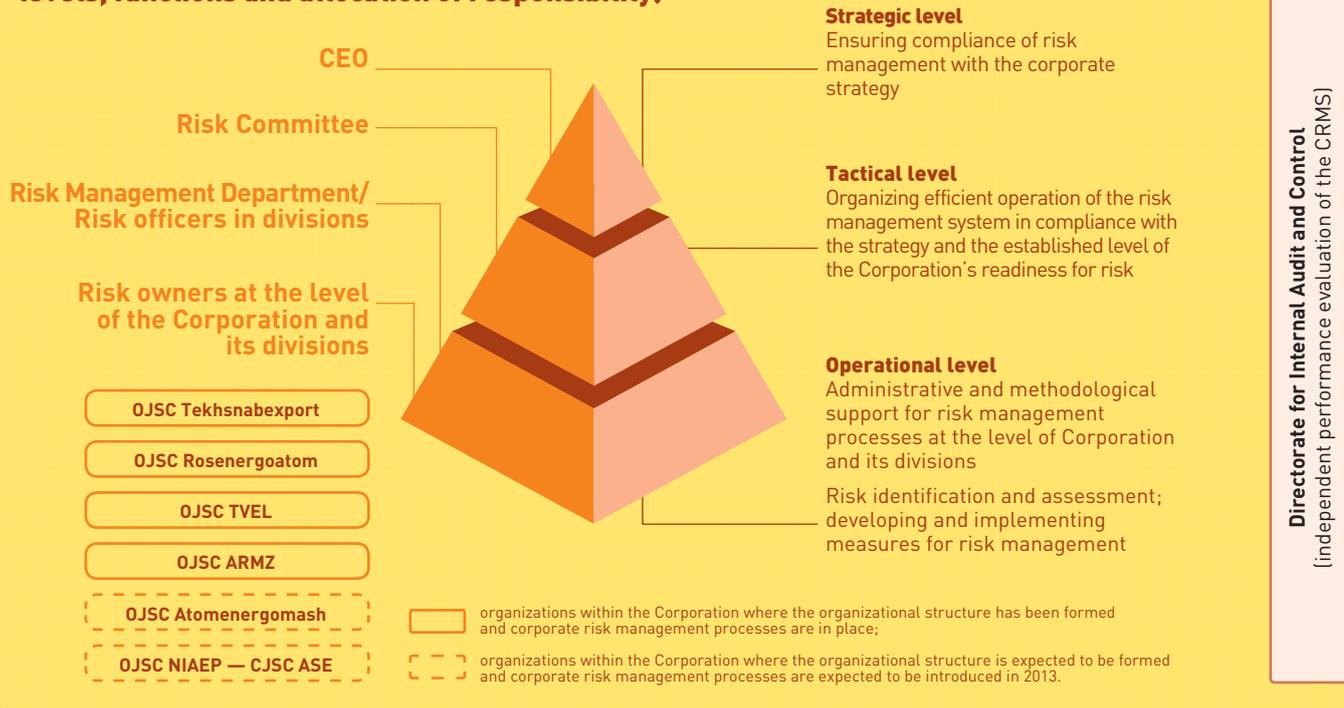
standardized Industry Procedure for Monitoring Reputational Risk Factors was developed and approved and regular monitoring of the factors was organized;

- KRIs² were determined for key risks; reports required on KRIs are included in KPI reports as well as budget analysis based on benchmarking actual performance against the targets.

In 2012, targets for readiness for risk were met in terms of both quantitative (financial) indicators and parameters that must not be violated (ensuring nuclear and radiation safety, meeting government targets, etc.).

² Key qualitative or quantitative indicators which reflect the current level of risk in advance

Corporate risk management system (management levels, functions and allocation of responsibility)



2.6.2. RISK INSURANCE

One of the key methods of risk management consists of risk insurance³.

The companies and organizations forming part of the Corporation fully meet the requirements imposed by existing legislation and delegated legislation for mandatory and compulsory insurance, which covers: liability for nuclear damage, liability of the owners of hazardous production facilities and hydraulic installations, liability of motor vehicle owners, liability during construction and installation, etc. To reduce the risk of financial losses from damage/loss of property and risks to the life and health of employees, assets and employees are insured.

To enhance the quality of insurance, the Corporation continues to take measures for enabling the reinsurance of property risks faced by Russian operators through the international pool system. In 2012,

42 % of liability for nuclear damage caused by Russian NPPs was reinsured with 16 members of the international pool system, which indicates that the international nuclear insurance community views Russian NPPs as sufficiently safe and reliable.

International insurance audits (involving representatives of the international pool system) were conducted at the Novovoronezh, Rostov, Smolensk and Balakovo NPPs. Inspections involved analyzing risks related to nuclear fuel handling, NPP operation, employees' proficiency, fire safety, environmental control, etc. Following the audit, international inspectors concluded that safety levels at the inspected NPPs meet international standards; they confirmed that property risks of Russian nuclear operators can be reinsured through the international pool system.

Russian experts conducted insurance audits at OJSC Institute of Reactor Materials, OJSC NIKIET, OJSC Siberian Chemical Plant, OJSC Urals Electrochemical Plant, FSUE Mayak Production Association, FSUE Mining and Chemicals Association, FSUE Atomflot, OJSC Angarsk Electrolysis Chemical Association. Insurance audits are aimed primarily at assessing insurable risks in order to insure liability to third parties for nuclear damage. The inspection involved analyzing risks related to operating equipment posing nuclear and radiation hazards, handling nuclear materials, employees' proficiency, fire safety, the radiation control system. Following the insurance audit, experts concluded that companies in the industry maintain an acceptable level of safety.

Plans for 2013 include further inspections and insurance audits at key enterprises.

2.6.3. MANAGEMENT OF KEY RISKS

A detailed description of key risks and main approaches to managing them is provided in the 2011 report of the Corporation. Key results achieved in the sphere of risk management in 2012 and information on key risks that were not covered in the previous report are presented below.

³ for details on regulation of risk insurance and its types, see the 2010 Report of the Corporation

Risks and results of risk management for 2012

(Changes in risks:  increase,  reduction,  no significant change)

Risk and its dynamics are better	Risk management results
Financial risks	
Currency risk 	<p>The Risk Committee of ROSATOM State Corporation approved the Strategy on Currency Risk Management and the Currency Risk Hedging Program. Implementation of the hedging program enabled the Corporation to minimize the risk of losses caused by adverse changes in exchange rates. The gain totaled: 1,171 mln RUB compared to a risk-free strategy (comprehensive risk insurance through acquiring put options); organizations made additional savings on actual euro and U.S. dollar exchange rates totaling 655 mln RUB.</p>
Interest rate risk 	<p>In the reporting year, interest rates increased; at the same time, the Corporation raised five-year fixed-rate loans from OJSC Sberbank of Russia and OJSC VTB Bank, which resulted in an increase in the average maturity of the loan portfolio. As a result, interest income and expenses leveled out over the loan periods.</p>
Credit risk <small>(risks of counterparty banks, risks of internal and external counterparties)</small> 	<p>There were no significant losses related to defaults by counterparties. There was a reduction in overdue accounts receivable.</p> <p>The Corporation uses guarantees when making purchases financed from its own and extra-budgetary funds; it has established criteria and limits for guarantors and underwriting banks.</p>
Liquidity risk 	<p>As part of the program aimed at implementing new tools for central cash flow control, treasury products were developed and documents were signed by the Corporation and captive banks in order to automatically merge cash balances from the Corporation's organizations in the accounts of OJSC Atomenergoprom. These treasury products will enable the Corporation to increase the amount of funds in the cash pool and the capability of OJSC Atomenergoprom to finance the Corporation's organizations. As reported by S&P on November 29, 2012, the credit rating of OJSC Atomenergoprom was confirmed at BBB/A-2, outlook "Stable".</p> <p>For more information on approaches to managing financial risks, see Section "Management of financial resources" on page 48.</p>
Commodity risks	
Risks in the market for NFC goods and services 	<p>The accident at the Fukushima-1 NPP in 2011 resulted in sluggish demand in the market for NFC goods and services and a tendency towards a reduction in prices. Despite a difficult situation in the market because of the negative impact of the accident, the Corporation managed not only to maintain a record high of uranium product exports in recent years, but also to increase the value of the ten-year export contract portfolio by 39 % to 24.67 bln USD.</p> <p>For more information on approaches to managing these risks, see Sections "International business" on page 134, "Mining division" on page 120, "Fuel division" on page 123 and 2012 reports of OJSC Tekhsnabexport, OJSC TVEL and OJSC ARMZ.</p>
Risks in the electricity market 	<p>The increase in risk was caused by uncertainty in the market as a new model of the electricity market is currently being considered and there are no major solutions and relevant mechanisms for making additional charges related to safe NPP operation and investments.</p> <p>ROSATOM's capability for managing this risk is limited. Low liquidity on markets where derivative financial instruments are traded poses a major obstacle to using such instruments as a means of risk management.</p> <p>In 2012, the accuracy of planning for selling prices for electricity totaled 99.6 %.</p>
Operational risks	
Risk of a reduction in electricity generation 	<p>Risk exposure related to a potential reduction in electricity generation is determined by the dependence of electricity output on the condition of equipment at NPPs, duration of repairs, on whether the schedule for commissioning/decommissioning of equipment is met, etc.</p> <p>Scheduled preventive repairs are carried out at NPPs; the Corporation implements programs aimed at extending the service life and increasing electricity output, including the possibility of exceeding the rated capacity of power units.</p> <p>In 2012, work started at power unit No. 1 of Leningrad NPP to restore the performance of graphite stacks in the RBMK reactor. After the work is successfully completed, the risk will be reduced to the level of 2011 or lower.</p> <p>For more information on approaches to managing these risks, see Sections "Management of property, plant and equipment" on page 57, "Electricity generating division" on page 127 of this report and the 2012 Report of OJSC Rosenergoatom.</p>

Operational risks

Risks in the sphere of industrial safety and the environment



In 2012, nuclear facilities functioned safely (there were no deviations in the operation of nuclear power facilities that might endanger people or the environment).

For more information on approaches to managing these risks, see Sections "Ensuring nuclear and radiation safety and a comprehensive solution to "nuclear legacy" issues" on page 141, "Management of environmental impact" on page 91 and reports of organizations forming part of the Corporation.

Risks associated with investment projects



While competition is becoming stronger, ROSATOM achieved a 31 % year-on-year increase in the volume of the portfolio of foreign orders for NPP construction over a ten-year period.

For more information on approaches to managing these risks, see Sections "Engineering Activities" on page 130, "International business" on page 134 and the subsection "Investment Management" on page 54, "Management of property, plant and equipment", as well as the 2012 Annual Report of OJSC NIAEP.

Political risks



In 2012, key international political risks were related primarily to the continuing worldwide reassessment of the impact of the Fukushima accident on the global nuclear power generation industry. A number of countries decided to taper off national nuclear programs (Germany, Switzerland); some countries suspended their programs (Venezuela, almost all of the Middle East countries); certain countries were waiting for a political decision to be made (China). Tendering for NPP construction in Jordan, Hungary and Egypt was postponed for various reasons.

Certain risks are related to the increased activity of competitors.

Despite the persisting influence of the "post-Fukushima syndrome", there were 8 intergovernmental agreements and 13 interdepartmental agreements on NPP construction, cooperation in the peaceful use of nuclear power, UNF removal from experimental reactors, etc., all of which is a positive sign indicating that foreign countries are regaining interest in the development of the nuclear power generation industry.

For more information on approaches to managing these risks, see Sections "International business" on page 134, "International cooperation" on page 131.

Image risks



In 2012, support for nuclear power generation industry in Russia returned to the "pre-Fukushima" level: the proportion of the country's population supporting the use of nuclear power increased from 53 % to 66 % (according to a survey conducted by Levada-Center).

Measures were taken to ensure that plans to develop the nuclear power generation industry receive media coverage as part of the country's development program.

The network of information centers was expanded. The first overseas centers in Hanoi (Vietnam) and Mersin (Turkey) came into operation.

For more information on approaches to managing these risks, see Sections "Social and Goodwill Capital Management" on page 84 and "Management of Social and Economic Resources in the Operating Regions" on page 176.

Employee risks



Measures for reducing risk include developing higher education programs aimed at training the required number of specialists with the required level of proficiency to anticipate the need for them; hiring and recruiting competent employees; implementing social programs (housing provision, voluntary health insurance, health resort, non-governmental pension programs, etc.).

In 2012, the concept of a single industry-level succession pool at three management levels was developed. The level of knowledge of university entrants to specialize in disciplines related to the nuclear industry has improved (the Unified State Examination results of entrants to NRNU MEPhI improved from 77.01 points in 2011 to 79.23 points in 2012). NRNU MEPhI was ranked first in the ranking compiled by the National Training Foundation (including over 100 Russian universities).

For more information on approaches to managing these risks, see Section "Human resource management" on page 63 and reports of organizations forming part of the Corporation.

Risk and its dynamics are better

Risk management results

Operational risks

Risk of losses and damage to assets



Due to administrative and structural changes that are currently being made in the nuclear industry and considerable expenditure, the Corporation and its organization face a risk of losses and damage to their assets.

The Corporation uses the following approaches to managing this risk:

- identifying and analyzing factors and conditions posing threats to economic security and the assets of the Corporation and its organizations;
- developing an Integrated Program for Preventing Corruption and Embezzlement in the Nuclear Industry.

The Corporation submitted 14 reports on violations identified to law enforcement agencies on its own initiative. Based on these materials, four criminal cases were started; 19 senior executives were dismissed; 9 contracts were terminated; the option of concluding contracts without disclosing information on beneficiaries was completely eliminated.

For more information on approaches to managing these risks, see Section "Corporate Governance" on page 29.

Risk of loss of critical knowledge



In the organizations forming part of the Corporation, 80 % of scientific and technological information is stored in paper format, which involves a potential risk of loss. 60 % of research workers possessing critical knowledge are aged over 75. Organizations forming part of the Corporation have separate intranet networks which are not integrated. Exchange of information faces delays.

The Governing Board of the Corporation has approved the 'Program to Form a Corporate Knowledge Management System' for 2012-2015.

900 thous. pages of materials from the scientific archives of the Innovation management unit were digitalized; this accounts for 26 % of the total volume of the archives. In 2012, the share of the Corporation's organizations involved in the knowledge management system totaled 671.4 % of the 2011 figure (this is twice as high as the target level).

For more information on approaches to managing these risks, see Section "Intellectual Property Management" on page 72.

Legal risks



The Corporation might face risks from changes in legislation, including legislation in the sphere of corporate governance, currency, tax, customs and license regulation, as well as risks from different interpretations of legislation.

The Corporation uses the following approaches to managing these risks:

- conducting operations in full compliance with legislation; monitoring and promptly responding to changes in legislation; aiming for constructive dialogue with agencies authorized to explain and interpret laws and regulations;
- analyzing draft amendments to existing legislation in the sphere of legal support and corporate governance and promptly making amendments to internal documents of the Corporation and its organizations;
- regulation of corporate governance processes in the Corporation and the organizations it manages.

The Corporation incurred no losses related to using corporate procedures; supervisory bodies found no instances of violations in the sphere of corporate governance and legal support committed by the Corporation.

For more information on approaches to managing these risks, see Section "Corporate Governance" on page 29.

2.6.4. TARGETS FOR THE DEVELOPMENT OF THE CRMS IN 2013

In 2013, Corporation intends to continue implementing its plan to develop the corporate risk management system for the period up to 2015:

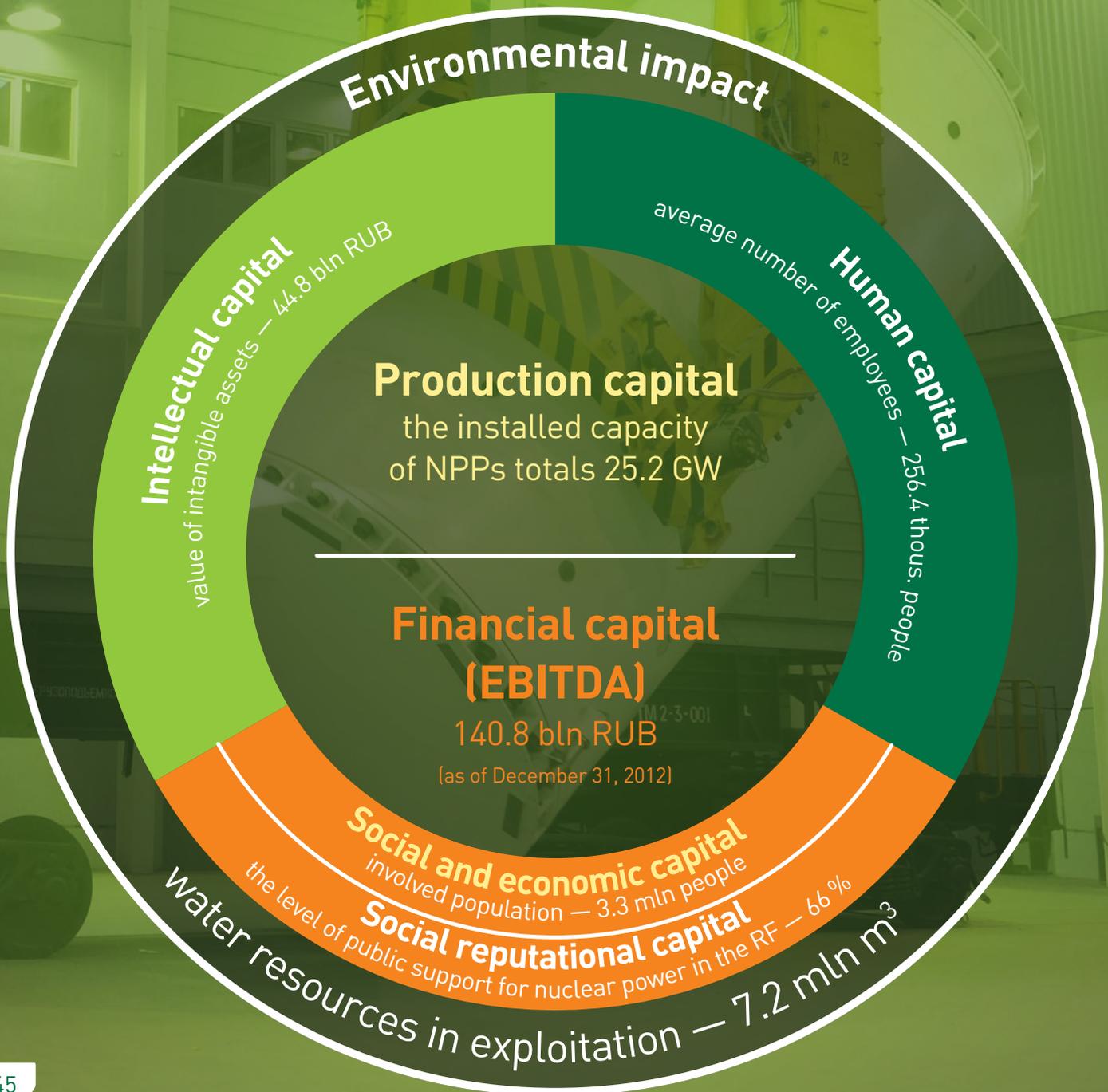
- continuing to introduce the organizational structure and risk management processes in the Corporation's divisions,
- further integration of the CRMS with strategic and investment planning processes,
- phased replication of the risk management system from investment projects to NPP construction projects.

Section 3

Capital Management Efficiency

By capital the Corporation implies certain resources (reserves) of tangible and intangible assets, which it uses in its operations. Rosatom identifies seven types of usable capital: financial, industrial, human, intellectual, socio-economic, social and reputational and natural.

- 3.1. Corporate Capitals46
- 3.2. Financial Capital Management.....48
- 3.3. Production Capital Management.....57
- 3.4. Human Capital Management63
- 3.5. Intellectual Capital Management72
- 3.6. Social & Economic Capital Management76
- 3.7. Social and Goodwill Capital Management....84
- 3.8. Environmental Impact Management91



3.1. Corporate Capitals

The capitals of ROSATOM State Corporation are a key element of its business model (see Section "Business Model"). They are transformed (increased, decreased, converted etc.) in the course of commercial and other activities, creating value in the mid-term and long-term period.

The Corporation defines capitals as certain resources (stocks) of tangible and intangible assets used in its business. The Corporation acknowledges that some of the capitals available to it are owned jointly with other stakeholders (e.g. natural resources or public infrastructure), therefore it has adopted a responsible approach to their management, constantly taking measures to minimize the possibility of negative impact.

ROSATOM State Corporation classifies its capitals into seven categories: financial, production-related, human, intellectual, social and economic, social and goodwill reputational and natural.

Integral growth or reduction in capitals leads to increase or decrease in the value created by ROSATOM State Corporation, and therefore the Corporation particularly focuses on management of the available capitals and improvement of the efficiency of their use.

Capitals of ROSATOM State Corporation (in 2012)

Financial capital	
EBITDA	140.8 bln RUB
Actual volume of investment financing	10 bln USD
Funds received from the federal budget	119.9 bln RUB
Net assets of organizations and equity affiliates	1,458.2 bln RUB

Production capital	
Total number of power generation units in operation in the RF	33
Total number of power generation units under construction in the RF	9
Installed capacity of NPP	25.2 GW
Market share of uranium enrichment services	45%
Corporation market share of nuclear fuel production (fabrication)	17%
Machine-building unit	Possibility to produce at least 2 full sets



Installation of an NPP turbine

Human capital

Average headcount	256.4 thous. persons
Proportion of professionals younger than 35	29.2%
Number of persons in the talent pool	190 persons
Total training costs	867.7 mln RUB
Total number of persons trained at the Central Institute for Advanced Training (excluding the Corporate Academy, which was based in the Moscow branch)	11,173 persons
The total number of persons trained at the ROSATOM Corporate Academy	8,810 persons

Intellectual capital

Number of patents received for inventions, utility models and industrial designs, certificates for PC and databases, know how registered	806 items per year
Proportion of innovative products in revenue	10.4%
R&D costs	22.7 bln RUB
Value of intangible assets	44.8 bln RUB

Social and goodwill capital

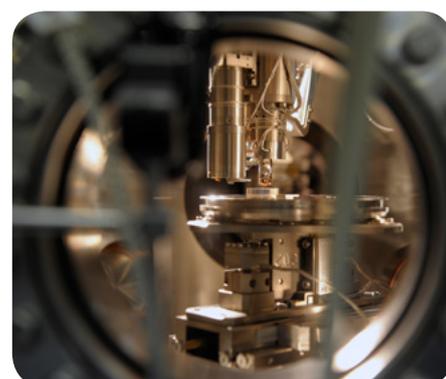
Support of the nuclear power generation development by the Russian population	44%
Corporate involvement of employees	62%

Social and economic capital

Number of restricted access municipalities	10
Number of NPP towns	11
Population involved	3.3 mln persons

Environmental impact (natural capital)

Mineral resources base (Russian assets): natural uranium	550.5 thous. t
Mineral resources base (Uranium One Inc.): uranium	155 thous. t
Water resources used	7.2 mln m³
Total area of the contaminated lands to be reclaimed	108 km²
Volume of LRW not isolated from the environment	427 mln m³



3.2. Financial Capital Management

Financial capital management involves implementation of financial strategy, investment activities management, transformation of the financial and economic unit (FEU) etc.



**Nikolay Solomon, First Deputy
CEO for Corporate Functions,
Chief Financial Officer**

What do you think of the implementation of the financial strategy in the reporting year? What are the priorities for the immediate future?

The Corporation has fully achieved the financial strategy targets in the area of bank relations, cash pool development, debt and exchange risk management. However, in some cases we had to change the ways to reach them. Thus, considering the state of the market in 2012 and the opportunity to secure very favorable conditions related to the cost of borrowing, we replaced a new issue of bonds with the attraction of long-term bank loans.

As for our future plans, the key objective for the year 2013 is to solve the problem of investment resource deficit. With the cost of loan financing increasing, better conditions can be achieved only by centralized attraction of loans and maintenance of a high credit rating. I would like to say that debt financing needs are constantly growing, as the Government continues to reduce the financing of our investment activities.

We also leave open the possibility of shareholding in joint ventures of third-party investors, especially since we have already had experience of

this kind, for example, the ALSTOM Atomenergomash joint venture founded in 2007 or AKME-Engineering set up in 2009 by OJSC EuroSibEnerg.

Measures that we have already taken to this end include establishment of OJSC AtomKapital. It is a 100 percent affiliate of the Corporation, functioning as a pool leader in the intragroup financing of FSUEs. This configuration enables optimal allocation of the debt load between OJSC Atomenergoprom and other organizations and entities.

Did the events of 2012 impact the strategic plans of the State Corporation in any way?

Last year we faced a number of strategic challenges which can influence further development of the Russian nuclear industry. First of all, it is a clearly defined priority of governmental policy to contain power tariff growth, which will require revision of the instruments for NPP construction financing in Russia.

Moreover, we are to update plans and schedules of the nuclear power generation industry development. In this area we should take into account the new, more conservative estimates of domestic power demand and the possible risks of export, including disconnection of the Baltic states from the unified power system.

Considering these factors, ROSATOM management decided to update the long-term strategy of the State Corporation under the new scenario conditions in 2013.

What other factors influence the financial and economic activities of the State Corporation?

We are still affected by the consequences of the NPP Fukushima disaster. Thus, the spot quotation for natural

uranium decreased throughout the year from USD 52 to USD 43.5 per pound, the long-term one- from USD 61 to USD 56 per pound of U in the form of U3083. Price quotations for uranium enrichment services also reduced: the spot one- from USD 138 to USD 119 per SWU, the long-term one- from USD 148 to USD 134 per SWU. To counter-balance this impact, we sign long-term contracts, combine pricing mechanisms etc.

We are also subject to exchange market fluctuations, since the incomes and expenses of our entities are denominated in different currencies. To mitigate the risk of losses, the Corporation has been implementing a program of foreign currency hedging since 2012. Its effect has already reached 1.171 mln RUB, and the additional economy by the organizations amounts to 655 mln RUB.

What are the key tools to improve the financial efficiency of the Corporation?

There are no ready-made solutions, it is ongoing work to improve capital management, cost management and investment optimization. We are facing the tasks of reducing working capital, primarily inventories, sales of non-core assets, optimization of repair and maintenance, materials, IT and overhead expenses. We are also cutting costs of personnel and procurement, as well as streamlining our investment projects portfolio.

Measures to relieve the tax burden include establishment of a consolidated taxpayer group (CTG), embracing 34 entities. CTG enables allocation of the aggregate profits tax to budgets of various levels, increasing tax proceeds of regional/city budgets within the Corporation's footprint while generally reducing the tax burden.

3.2.1. FINANCIAL OPERATIONS MANAGEMENT

Financial strategy

The main goal of ROSATOM's financial strategy is to ensure the financial sustainability of the Corporation and its organizations in the changing environment and to provide for the most efficient financing and financial risk management. In November 2012, within the framework of the annual revision, the Management Board of ROSATOM State Corporation approved the key principles of the Financial Strategy for 2013-2014, stipulating targets, areas of operation and instruments for reaching goals. It also adopted recommendations on the diversification of industry fundraising tools (strategic investor outreach, issue of bonds, cooperation with export credit agencies etc.).

FEU transformation program results

The FEU transformation program of ROSATOM State Corporation and its organizations has been implemented since 2009, with 160 projects to be implemented before 2014.

Results in 2012

- Cooperation was maintained with Russian and foreign banks. Long-term (five-year) credits were received from OJSC Sberbank of Russia and OJSC VTB Bank with a total value of 40 bln RUB. The total volume of confirmed long-term credit lines as of December 31, 2012 reached 55 bln RUB;
- The centralization of treasury transactions and development of intragroup financing which started in 2009-2010 was also continued. Organizations received an opportunity to use the intragroup financial resources more efficiently. Treasury products were developed and documents were signed with the Corporation's core banks (OJSC VTB, OJSC Gazprombank, OJSC Sberbank) to automatically consolidate the free cash balances of the Corporation's organizations with the accounts of OJSC Atomenergoprom. These treasury products will increase the volume of resources in the cash pool and expand the opportunities of OJSC Atomenergoprom related to financing ROSATOM State Corporation organizations;

- A guarantee was introduced as a means to ensure the return of advance and contract liabilities for the purposes of procurement from our own and extrabudgetary funds;
- Requirements to guarantors and guaranteeing banks were approved;
- A single industry procedure was developed for accepting contract liabilities security in the form of guarantees and bank guarantees in the course of procurement. It develops a unified approach to dealing with guarantees and bank guarantees of the Corporation and its organizations for procurement, which reduces financial risks related to advance payments, encouragement of counterparties' responsibility for due performance under contracts;
- The industry financial policy of ROSATOM State Corporation was updated (a key change was adjustment of the schedule of the reports submission to the Treasury for the Corporation's organizations).

Bureaucracy reduction project

In 2012, ROSATOM State Corporation launched a project for bureaucracy reduction. It was triggered by the information days and involvement survey (see Section "Human Capital Management"), highlighting the issue of bureaucracy as being amongst the most pressing ones. In May 2012, the annual conference of industry leaders set forth the key areas of the project. Its main goal is to increase the speed of management decision-making by streamlining business processes, as well as to reduce the time and labor input into formal procedures.

Project Results in 2012

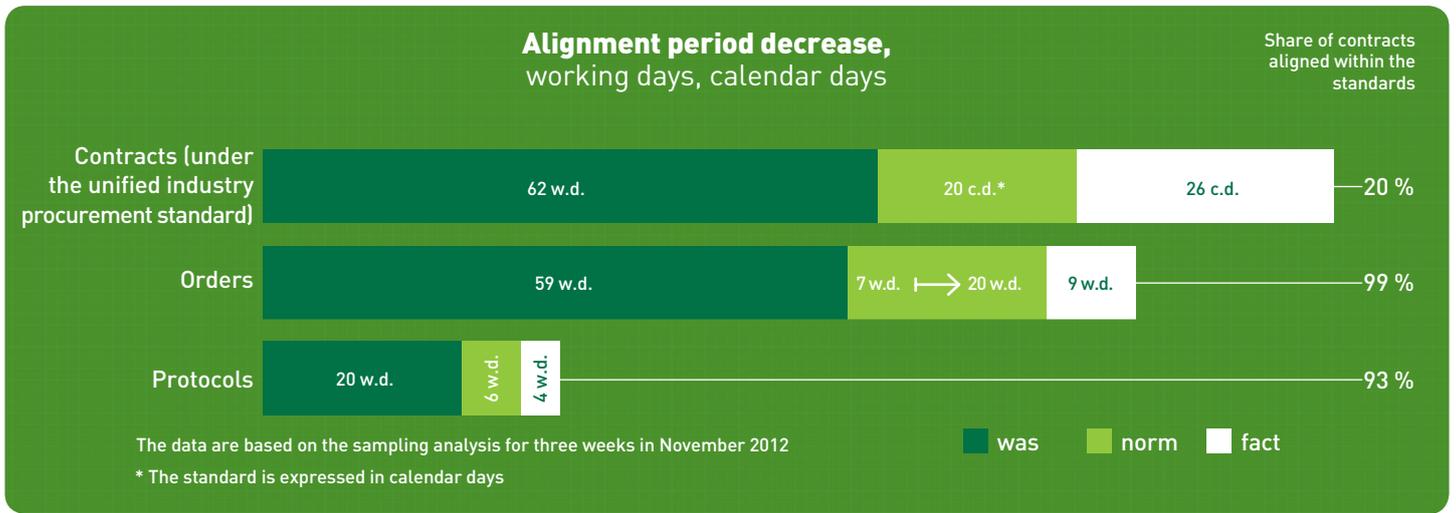
- Corporation units were transferred to new procurement procedures. Introduction of the latter is expected to reduce the period of procurement preparation and realization three times;

 see Subsection 3.8.3. "Procurement management" on page 61

The economic effect of the intragroup financing, bln RUB



- New regulations for contracting came into force, as well as the procedure for adoption of document drafts defining new rules of alignment for draft orders, instructions, letters and minutes. As a result, the period of several internal processes reduced ten times;
- Labor intensity was reduced for the processes of plan/actual reporting and projection of budget implementation by 8,000 man-days per year, mid-term planning process by 4,500 man-days per year, KPI reporting processes by 3,000 man-days per year to reach 15,500 man-days per year overall;
- The current methodology and standards of investment planning were updated. Excessive requirements to investment planning products were removed, reducing labor intensity by 720 man-days per year.



Mid-term period plans for financial activities management

- to expand the range of the financing instruments used in order to reduce the cost of debt servicing and to ensure timely and full financing of the industry organizations investment program on reasonable conditions,
- to place OJSC Atomenergoprom bonds (actual placement volumes will take into account conditions of placement and available alternatives in cost and terms of borrowing),
- to obtain syndicated loans from the pool of international banks, including those for export credit agencies coverage.

Due to the future growth in debt load by 2014 and risks of its further increase driven by external factors the following measures are required:

- maintenance of firm payment discipline in intragroup financing;
- enhanced precision of mid-term cash flow planning;
- prevention of internal competition for credit resources among organizations;
- further centralization of cash management;

- focus on relations with core banks as the most reliable partners in terms of financing availability given required volumes and costs;
- thorough coverage of liabilities, including covenants, to the current creditors (including those for syndicated loans) and rating agencies.

3.2.2. FINANCIAL AND ECONOMIC PERFORMANCE



Victoria Andriyenko,
Chief Accountant

What are the key results in 2012?

In 2012, we completed the transition to preparing consolidated financial

statements in accordance with the international standards (IFRS) under Federal Law 208-FZ "On consolidated financial statements". In 2011, along with OJSC Atomenergoprom, approximately 80 companies transferred to the IFRS, and starting in 2012, over 170 organizations of the industry have been involved in the IFRS reporting process.

When we speak of civil assets of the nuclear industry consolidated into the OJSC Atomenergoprom group of companies, it should be mentioned that we have published consolidated financial reporting on the official web site for the first time. All key indicators and comments are shown in this section for all stakeholders to have an opportunity to become familiar with the full set of financial information.

I would also like to highlight the establishment of the consolidated nuclear industry taxpayer group (CTG) in 2012, embracing 34 of the largest industry organizations. Establishment of CTG considerably reduces the labor input of the accounting, economic, and financial functions related to tax reporting and documentation substantiating transfer prices among CTG organizations. Moreover, both in Russia and in the global practice, CTG provide a tax benefit to companies reducing group profits tax. Another result of CTG operation is the reallocation of tax proceeds and tax increases in the budgets of the regions where the Corporation's organizations and their branches operate.

What does the State Corporation gain from transition to the international standards of consolidated financial statements?

IFRS consolidated reporting is a major step towards enhancing transparency. OJSC Atomenergoprom, which has submitted IFRS financial statements for the second time already, has an opportunity to compare its financial indicators with those of similar foreign companies also reporting under IFRS. Moreover, IFRS statements are a prerequisite for credit rating maintenance. In November, Standard & Poor's credit rating service confirmed the long-term and short-term "BBB/A-2" credit ratings for Atomenergoprom, as well as "ruAAA" national scale rating.

Were there any difficulties related to the transition to international standard reporting?

IFRS reporting under the federal law is not an easy task. There are very tight deadlines: the law came into force in December 2011, and in April 2013 we already had to report under IFRS for two years (2011-2012). Special methodologies were developed, including those to apply the requirements of international standards to federal state unitary enterprises. As a result, ROSATOM was the first state corporation to meet the requirements of the federal law.

What are the plans for 2013 and for the mid-term period?

In November 2010, we approved the strategy for development of the internal control system for financial statements. It stipulates transition to an audit based on internal controls system testing by 2015. Strict regulation and formalization of the procedures ensuring the reliability of

statements are key drivers of timely and high-quality results. In 2011-2012, the results of organizations' efforts to create the internal controls system were transferred to an external auditor, and in 2013, we are planning to continue this work, especially because availability of a system of controls ensuring reliable reporting has become obligatory since the new law on accounting entered into force.

KEY FINANCIAL AND ECONOMIC INDICATORS IN 2012⁴

Key financial indicators, bln RUB

	2012	2011 *	2010	2012/2011, %
Revenue	396.4	389.4	391.4	101.8
Cost of sales	(270.6)	(226.8)	(206.3)	119.3
Gross profit	125.8	162.6	185.1	77.4
SGA expenses	(74.0)	(66.0)	(60.3)	112.1
Other income and expenses, net	(17.7)	(10.4)	(9.9)	170.2
Financial income and expenses, net	2.3	(8.3)	8.6	(27.7)
Proportion of the net profit/(loss) of the companies recorded under the equity accounting method	3.6	2.7	(1.0)	133.3
Profit tax expense	(13.5)	(19.7)	(29.6)	68.5
Annual profit	26.5	60.9	92.9	43.5
Net operating profit after tax (NOPAT)	20.6	66.5	85.3	31.0

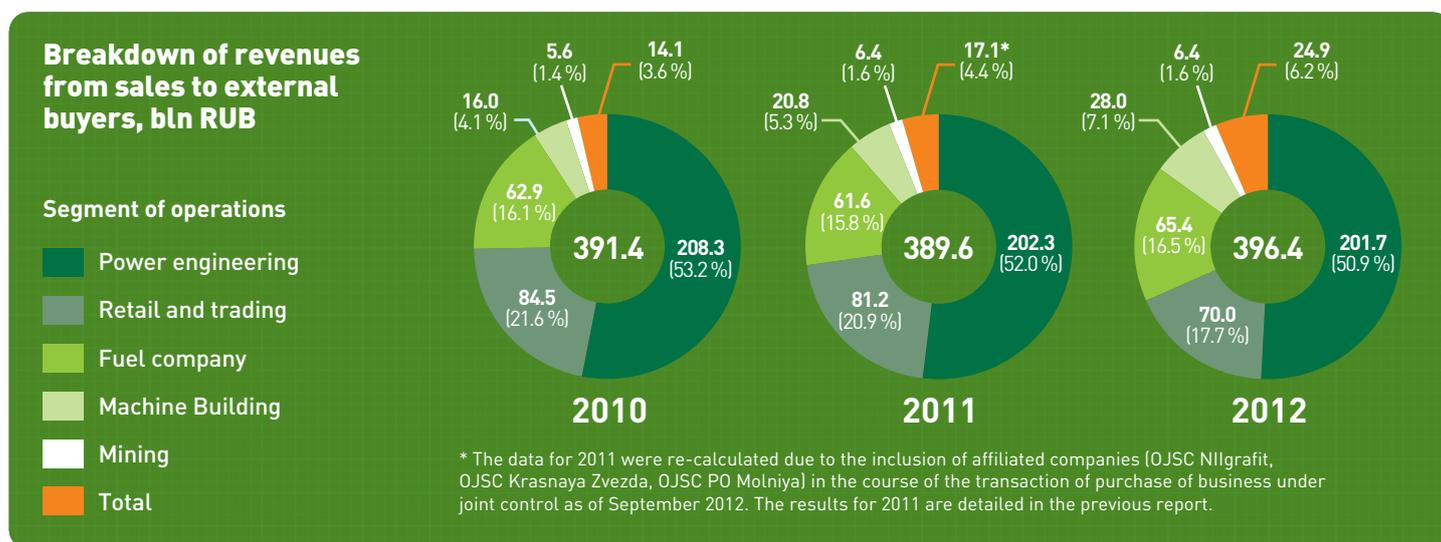
* The data for 2011 were re-calculated due to the inclusion of affiliated companies (OJSC Nilgrafit, OJSC Krasnaya Zvezda, OJSC PO Molniya) in the course of the transaction of purchase of business under joint control as of September 2012. The results for 2011 are detailed in the previous report.

⁴ This section shows IFRS data of OJSC Atomenergoprom and its subsidiaries (hereinafter jointly referred to as "Atomenergoprom Group"). Atomenergoprom Group is an integrated group of companies consolidating the civil assets of the Russian nuclear industry, ensuring the complete production cycle in nuclear power generation. Its subsidiaries are Russian OJSC, CJSC, LLC (as defined in the Russian Civil Code), and companies incorporated in other countries. The consolidated annual IFRS financial reporting of OJSC Atomenergoprom for 2012 is available [at its web site](#). Some figures in this section may be at variance with the data provided in the IFRS financial statements of OJSC Atomenergoprom (Appendix 5) due to rounding.

In 2012, revenue growth rates (1.8%) were considerably lower than cost growth rates (19.3%) mainly due to the following factors:

- a reduction in revenues from sales of power, capacity and heat by Rosenergoatom OJSC Concern. Despite the growth in power generation volume by 2.7%, an unfavorable pricing environment on the free market of electric power led to a decrease in revenues compared to 2011;
- a reduction in revenue from sales of uranium-containing products and enrichment services. The year on year dynamics was conditioned by decreasing market prices for the products due to the accident at NPP Fukushima 1, as well as ruble exchange rate growth against anchor currencies, and amounted to 6.6 bln RUB.

These negative changes were partially offset by increased revenue from other types of products, goods, works and services, which led to an overall growth in revenue in 2012 against 2011, however, this didn't allow revenue growth rates to be equal to those of costs.



Cost structure, bln RUB

Cost of sales	2012	2011 *	2010	2012/2011, %
Personnel costs	65.3	56.5	58.8	115.6
Depreciation and amortization	59.5	60.8	54.9	97.9
Raw and other materials, fuel	64.2	55.4	35.1	115.9
Cost of power purchase for resale and in-house needs of OJSC Rosenergoatom	21.6	19.5	15.1	110.8
Production works and services of third-party contractors	32.9	22.5	19.1	146.2
Other expenses	35.7	33.7	35.3	105.9
Changes in finished goods inventory and work in progress	(8.6)	(21.6)	(12.0)	39.8
Total	270.6	226.8	206.3	119.3

* The data for 2011 were re-calculated due to the inclusion of affiliated companies (OJSC Nilgrafit, OJSC Krasnaya Zvezda, OJSC PO Molniya) in the course of the transaction of purchase of business under joint control as of September 2012.

The changes in the cost of operations (growth by 19.3%, or 43.8 bln RUB against 2011) were influenced by the following factors:

- an increase in the volume of production operations and services of third-party contractors (by 46.4%, or 10.4 bln RUB),
- a decrease in the volume of work in progress and inventory stock (by 39.6%, or 13.0 bln RUB),
- a growth in production personnel expenses (by 15.5%, or 8.8 bln RUB).

The growth in SGA expenses by 6.2% was primarily due to increasing personnel costs (by 4 bln RUB), as well as insignificant increases in certain other items.

Increasing other expenses (net) by 7.1 bln RUB were largely conditioned by recording in 2012 the losses from goodwill impairment for Mantra Resources Limited (10.6 bln RUB) and growing losses from fixed assets impairment (by 8.8 bln RUB). These changes were partially offset by a decrease in losses from disposal of fixed assets, intangible and other assets (12.4 bln RUB).

The increase in financial income (net) by 10.5 bln RUB was mainly the result of profit gains from the sale of OJSC Inter RAO UES shares (for 4.5 bln RUB), a decrease in amortization of provisions discount (3.5 bln RUB), and a growth in interest from loans issued (2.8 bln RUB).

The year-on-year decrease in the annual profit was 56.4% (34.3 bln RUB), which is mainly due to slower revenue growth rates as compared to cost growth rates, as well as the growth in cost itself by 21.9% (48.7 bln RUB), SGA expenses by 6.2% (4.3 bln RUB), other expenses (net) by 67.1% (7.1 bln RUB). It was partially compensated by the growth in financial income (net), the key reasons for which are mentioned above, as well as the increasing share in the profit of affiliated and jointly controlled companies, with the respective decrease in profit tax expenses.

KEY FINANCIAL AND ECONOMIC INDICATORS

Financial stability indicators

Indicator	2012	2011	2010
Debt to equity ratio	0.35	0.37	0.27

Liquidity indicators

Indicator	2012	2011	2010
Quick assets ratio	1.18	1.38*	1.54
Working capital ratio	1.91	2.00*	2.21

* The data for 2011 were re-calculated due to the inclusion of affiliated companies (OJSC Nilgrafit, OJSC Krasnaya Zvezda, OJSC PO Molniya) in the course of the transaction of purchase of business under joint control as of September 2012. The results for 2011 are detailed in the previous report.

In the reporting year, current assets and working capital ratios decreased by 15% and 5% respectively against 2011, mainly due to the period-end reduction in the cash balance.

Turnover indicators, days

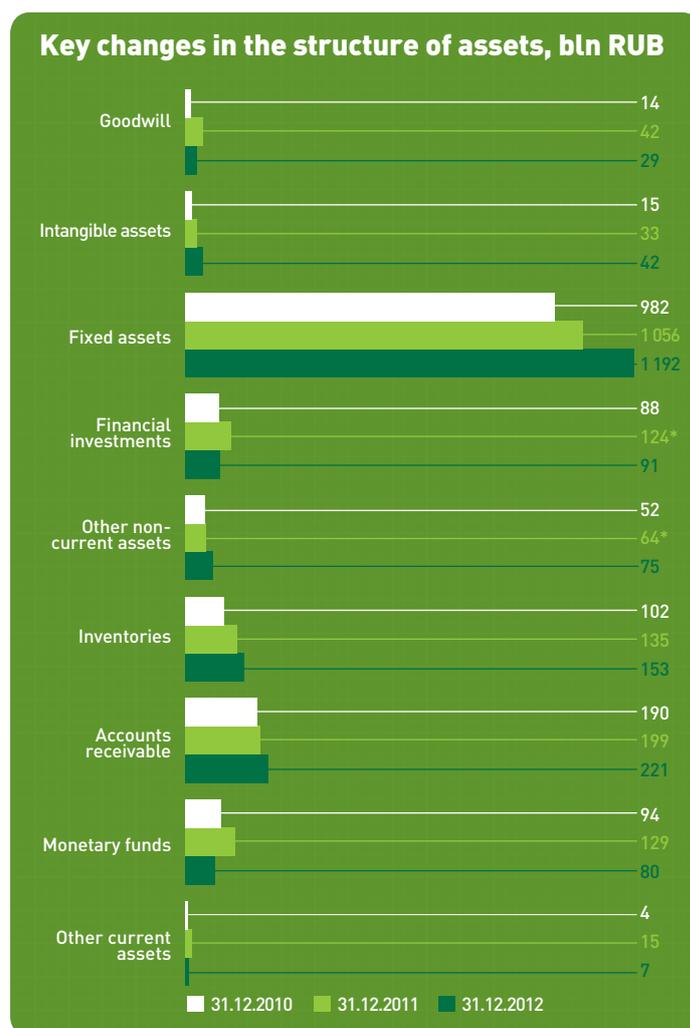
Indicator	2012	2011	2010
Inventory turnover period	194	195	166
Accounts receivable turnover period	47	41	41
Accounts payable turnover period	63	65	51

In 2012, no considerable changes in the turnover indicators were witnessed.

Profitability indicators, %

Indicator	2012	2011	2010
Return on sales (ROS)	6.7	15.7	23.7
Return on assets (ROA)	1.4	3.4	6.0
Return on equity (ROE)	2.1	5.0	8.6

STRUCTURE OF ASSETS



* The data for 2011 were re-calculated due to the inclusion of affiliated companies (OJSC Nilgrafit, OJSC Krasnaya Zvezda, OJSC PO Molniya) in the course of the transaction of purchase of business under joint control as of September 2012. The results for 2011 are detailed in the previous report.

The goodwill decrease by 13 bln RUB in 2012 was largely due to recognition of the losses from goodwill impairment for Mantra Resources Limited (by 10.6 bln RUB).

In the reporting year intangible assets increased by 9 bln RUB mainly due to growth in assets of exploration and assessment.

The year-on-year increase in the book value of fixed assets by 136 bln RUB was due to capital investments in branches of Rosenergoatom Concern OJSC.

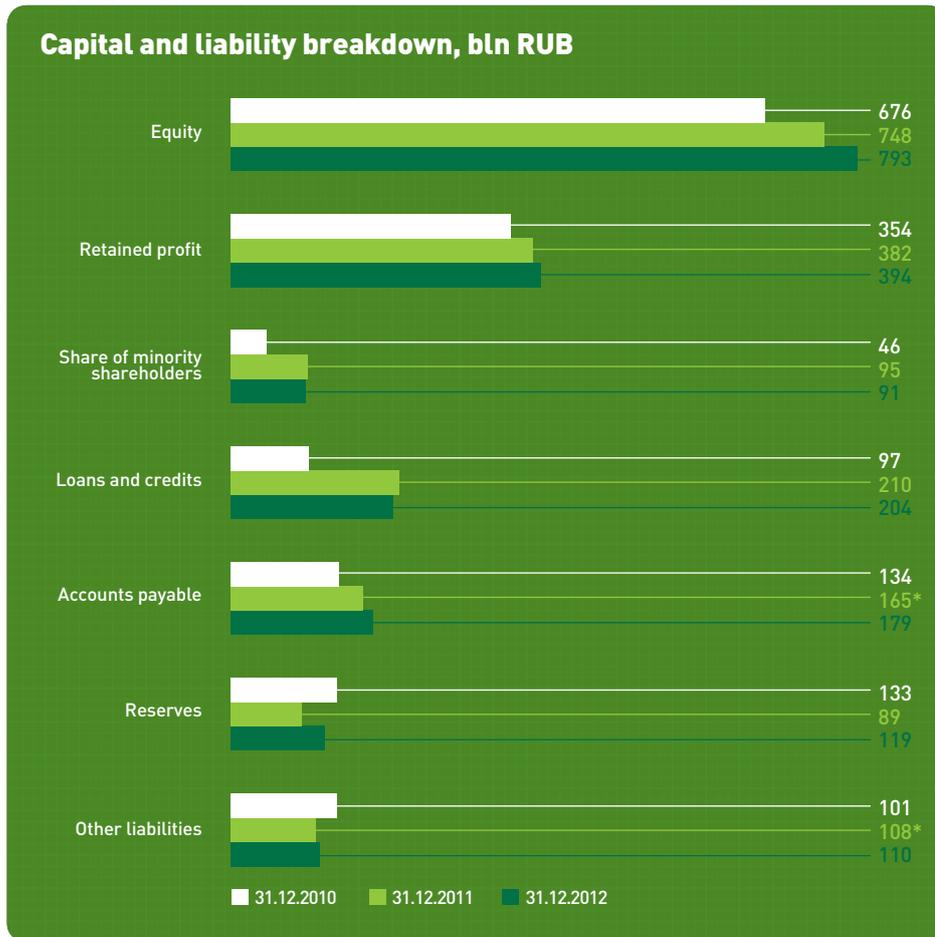
In 2012, long-term financial investments decreased by 33 bln RUB largely as a result of sales of long-term bills of OJSC VTB and OJSC VTB Leasing by OJSC Atomenergoprom to the amount of 35 bln RUB.

Inventory growth by 18 bln RUB in 2012 year on year is primarily connected with the increase in the cost balance in work in progress (by 17 bln RUB).

The increase in the accounts receivable by 22 bln RUB in the reporting year was largely conditioned by growth in long-term loans issued to CJSC Atomstroyexport, an associate of the group, for working capital financing (19 bln RUB).

There were no significant changes in other current assets in 2012 compared to 2011.

CAPITAL AND LIABILITY BREAKDOWN



* The data for 2011 were re-calculated due to the inclusion of affiliated companies (OJSC Nilgrafit, OJSC Krasnaya Zvezda, OJSC PO Molniya) in the course of the transaction of purchase of business under joint control as of September 2012. The results for 2011 are detailed in the previous report.

3.2.3. INVESTMENT MANAGEMENT

Investment management tools of ROSATOM State Corporation

- collective decision-making on investments by the Investment Committee of the Corporation and investment committees of its divisions (the level of investment decision making depends on the strategic importance of the project);
- building the Project Portfolio of the Corporation for the year and the mid-term period as a set of projects of divisions/directorates, their annual update;
- monitoring the implementation of divisions/directorates projects at the level of the Corporation,
- decision making on key stages of important projects and control of their implementation at the level of the Corporation,
- application of the phase-gate process to implementation and control of investment projects.

Key Results in 2012

In 2012, the Corporation began introducing changes into the process of investment management:

- a procedure was implemented to guide investment management with limited investment resources;
- it introduced a mechanism to control implementation of priority projects at the Corporation level;
- standard templates and formats were introduced to develop and make due decisions, preventing overlapping in mid-term planning and budgeting;
- standard approaches to assessment of investment projects implementation were defined, as well as pro formas of project reporting;
- at the Corporation level, the Project Portfolio was developed as a set of projects and programs of the Corporation for 2012–2016, the Project Portfolio for 2012 was approved at the Corporation level;

Equity growth by 45 bln RUB in 2012 was mainly due to an increase in the charter capital as additional shares of OJSC Atomenergoprom were offered (for 62 bln RUB). This change was partially offset by a decrease in equity reserves (by 17 bln RUB), including the provision for revaluation of financial assets available for sale (shares of OJSC Inter RAO UES) (9 bln RUB).

The growth in accounts payable by 14 bln RUB is largely a result of long-term debt built in 2012 in the course of the purchase of OJSC Inter RAO UES shares (21 bln RUB), partially compensated by a decrease in debt to other creditors.

The increase in the amount of reserves by 30 bln RUB was primarily accounted for by the growth in the provision for fixed assets decommissioning (by 13 bln RUB), for used nuclear fuel treatment (by 12 bln RUB), and radioactive waste treatment (by 4 bln RUB).

In 2012, there were no considerable changes in other liability items year on year.

The annual investments of ROSATOM State Corporation amount to ~10 bln USD.

- the Corporation introduced a procedure for quarterly monitoring of the Project Portfolio, enabling control and timely adjustment of the implementation of Portfolio projects;
- integration mechanisms for processes within investment and mid-term planning, budgeting, assessment (KPI) were improved;
- a production test of the information system of the project portfolio management was completed in pilot organizations of the industry.

Key areas of investment in 2012

Division/unit	Areas of investment
Mining division	<ul style="list-style-type: none"> - development of the raw materials base and recovery of natural uranium in the RF, - development of the global raw materials base and recovery of natural uranium on the basis of the global growth platform (Uranium One Inc.), - leadership in technologies of uranium recovery and processing, - diversification towards strategic and innovative materials.
Fuel division	<ul style="list-style-type: none"> - maintenance and optimization of nuclear fuel fabrication, - maintenance of sublimate separation operations, - R&D to develop new types of nuclear fuel and fuel cycles, - R&D to develop and improve gas centrifuges and new models of separation auxiliary equipment, - development of non-nuclear operations.
Power engineering division	<ul style="list-style-type: none"> - construction of NPP power generation units and a floating nuclear heat and power plant, - implementation of projects and events at operating power generation units of NPP to extend the life cycle of power generation units, the program to ensure safe and stable operation of the current power generation units, - implementation of projects for the treatment of irradiated nuclear fuel and radioactive waste, - implementation of other investment projects and works: research and development, design and experiments, surveys for new sites of NPP power generation units construction, design of a standard optimized and IT-based power generation unit VVER (VVER-TOI) etc.
Machine building division	<ul style="list-style-type: none"> - enhancing competitiveness of the industry entities on the basis of a comprehensive performance improvement program, - development of production competences in the sectors of heat, as well as gas and petroleum chemistry, - implementation of programs for technological re-equipment of companies.
OJSC Technabexport	<ul style="list-style-type: none"> - development of industry transport infrastructure, including the purchase of 30B containers to transport uranium products as part of the establishment of the corporate transport machinery fleet, - alignment of nuclear power use facilities with the requirement of federal standards and rules related to nuclear power use, - ensuring the safe handling and transportation of uranium products.
OJSC AEP, OJSC NIAEP, OJSC SPBAEP	<ul style="list-style-type: none"> - equipment of construction sites for construction and installation, - creating a branch infrastructure at new NPP construction sites, - upgrade of fixed assets to boost construction rates, - development of IT infrastructure and software equipment, - building expertise in construction of complex engineering facilities by having a stake in construction companies possessing innovative construction technologies.
OJSC SRC NIAR	<ul style="list-style-type: none"> - upgrade of the production of fuel elements and fuel bundles with vibro-packed MOX fuel, - construction of a multi-purpose experimental fast neutron reactor, - update of the company's production and technological base.

Investment financing volume

Division/operating segment/organization	Actual financing of investment programs*, mln RUB including VAT
Power engineering division (OJSC Rosenergoatom)	182,662
Fuel company (OJSC TVEL)	35,461
Mining division (OJSC Atomredmetzoloto)	18,694
FSUE Mining and Chemicals	9,492
Machine Building Division** (OJSC Atomenergomash)	3,121
FSUE RosRAO	1,250
OJSC Afrikantov Design Bureau	1,234
Retail and trading (OJSC Techsnabexport)	1,088
OJSC SRC NIIAR	842
OJSC NIAEP	755
OJSC SPBAEP	516
OJSC Atomenergoproject	397

* from all sources of financing; the methodology of calculation was modified in 2012

** net of OJSC Afrikantov Design Bureau

Plans for 2013 and the mid-term period

Implementation of measures aimed at boosting the efficiency of the Corporate Project Portfolio by developing the management system and enhancing the quality of project documentation, including:

- changes to the system of project management,
- development of the management reporting system, its automation;
- development of the system of monitoring targeted and efficient use of investment funds, project audit;
- update of regulatory and methodological documents.



NPP construction view

3.3. Production Capital Management

Production capital management includes the management of production efficiency, the construction and operational efficiency of nuclear power facilities, procurement procedures (equipment purchase) efficiency etc.

3.3.1. ROSATOM PRODUCTION SYSTEM



Sergey Obozov, Director for Development of the ROSATOM Production System

How do you assess the results of introducing the ROSATOM Production System in 2012? What has been achieved and what is yet to be done?

In the reporting year, we implemented 237 projects in 92 organizations of the industry. We carried out the campaign "Three-Step Strategy", including introduction of the 5C system, flow streamlining and standardization of workplaces. Over 1.5 mln t of "metal scrap" was removed from production sites. The time input of processes in flows was reduced by 253 conventional "item-years". Over 10,000 workplaces were standardized. Overall, the economic effect from the RPS introduction amounted to over 3 bln RUB.

If 2012 was the year of quantity in terms of the RPS scale, 2013 will be the year of quality. We set ourselves the task of implementing production optimization projects faster and with higher quality.

Can RPS be considered only a system of production efficiency improvement, in other words, a system of production capital building, or is it a more comprehensive program, including, among others, human capital?

ROSATOM's ambitious aims of global leadership should be supported by an efficient production system. And its efficiency depends primarily on the qualifications of personnel. When we started this work, it involved several dozen people, now we have involved thousands.

Understanding that qualified personnel are a significant competitive advantage, we pay much attention to HR activities. Last year we carried out continuous training of over two thousand persons, and, by the way, in the next year we are shifting to project-based training: it will be based on our own projects, and no longer specially designed sites.

The number of improvement proposals per employee is growing. For example, in OJSC AECA this indicator increased 12 times in three years. Personal involvement is also growing — the number of people proposing improvements in this company is 60% of the staff. And overall, the number of improvement suggestions grew dramatically. A record number of proposals were submitted at Chepets Mechanical Plant: over two thousand in a year, more than half of which were implemented. The indicator of their implementation, by the way, is also growing: at OJSC ZIO-Podolsk and Balakovskaya NPP (leaders in this area) it reached 95%, which means that almost all improvement proposals of employees are considered useful and are introduced.

In recent years a group of leaders has been built in the industry, about 500 persons, including both general directors and rank-and-file employees. In autumn, we held the forum "RPS leaders: best practice", where we analyzed best practice and discussed plans of further development of the production system.

Global economy is essentially a competition among the production systems of the

world's leading corporations. Our ambitious aims of global leadership do not let us fall behind in the efficiency of material production. And, naturally, professionalism of our employees is a key resource for gaining leadership.

What are the plans for further development of the RPS?

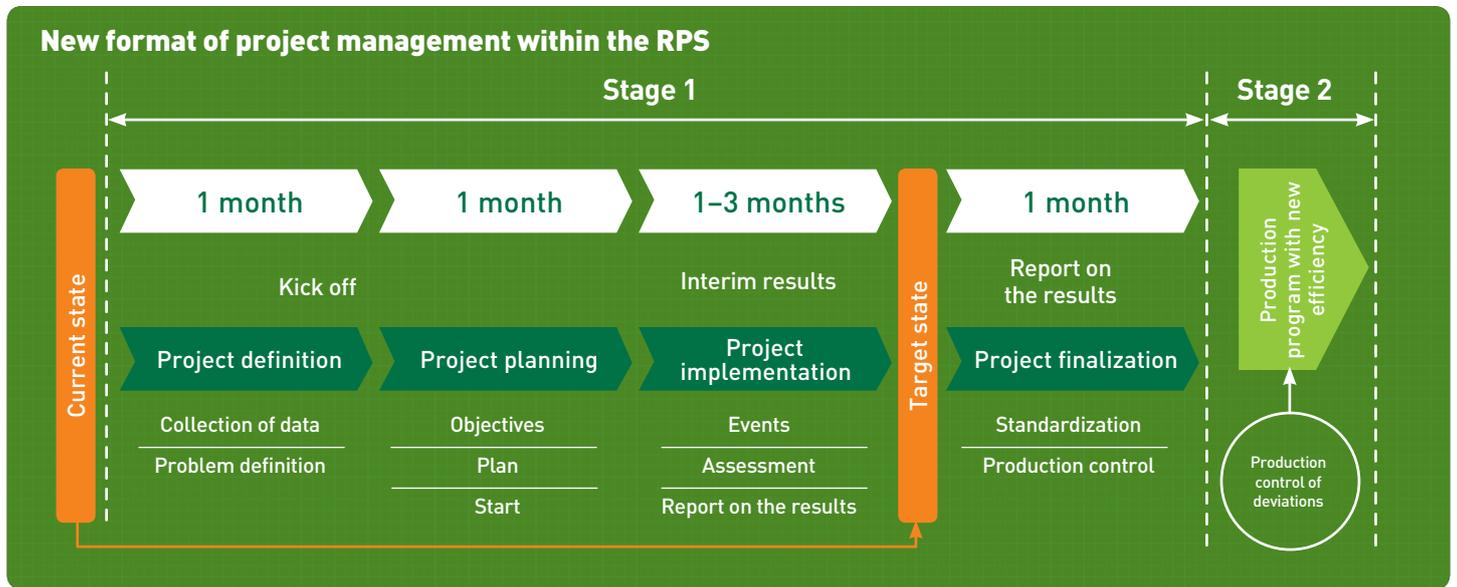
Strange as it may seem, not all results of the RPS implementation can be measured in terms of economics. Of course, we plan our work to meet specific economic and financial indicators, but practice shows that RPS affects other aspects as well. For example, due to the standardization of workplaces, the injury rate reduced, workers know exactly where everything is and can almost perform production operations with their eyes closed. To give another example, the area of RPS application is expanding with the launch of the "Lean town" project. It presupposes using the lean production system in the municipal economy: heat and power supply, passenger transportation, utilities management, municipal services etc. This project will be implemented in pilot mode in four towns — Desnogorsk, Zheleznogorsk, Kovrov and Trekhgornny.

In 2013, major efforts will be aimed at the implementation of priority industry projects of the RPS and RPS leader development in the industry companies for employees to gain skills of practical application of production system tools.

ROSATOM Production System (RPS) is a successor of the "scientific organization of labor, production and management" approach and the methodology developed by

the USSR Ministry of Medium Engineering. The RPS also includes the best practice of today's methodological platforms, primarily the Toyota production system.

The main aim of the RPS is to reduce all kinds of losses in production and business processes, as well as the improved performance of ROSATOM State Corporation (www.ps-rosatom.ru).

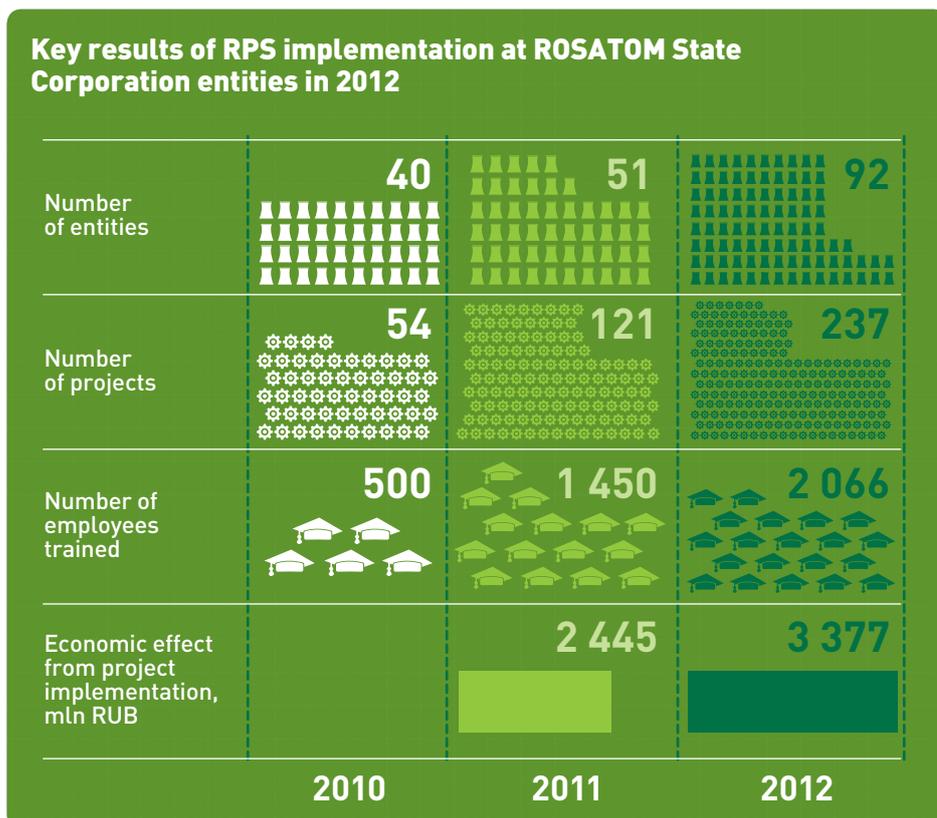


Results in 2012

The key results of RPS implementation in 2012 were achieved within the framework of the program "Comprehensive Optimization of Production in the Nuclear Industry Companies". Projects

were implemented to increase production efficiency for major products at the industry entities: 5C was introduced in the companies, value creation flows were mapped out for selected products, losses

were identified and removed, workplaces were standardized, programs of improving production efficiency were developed, training was held for employees, including the top management of the Corporation.



Production and storage space was reduced in all organizations of the industry. Below are integrated indicators.

Reduction of production and storage space

Area reduction	April 01, 2012	December 31, 2012
Production, m ²	57,664	601,594
Storage, m ²	11,346	126,499

For details see the e-version of the Annual Report

Economic effect of RPS implementation at ROSATOM State Corporation entities in 2012

Unit/organization	Economic effect, mln RUB
OJSC Rosenergoatom	729.0
OJSC TVEL	1,792.0
OJSC AEM	368.4
OJSC ARMZ	39.2
Nuclear and radiation safety facilities	74.5
Nuclear Weapons Complex	152.6
Engineering	221.0
Total	3,376.7

For details see sections Mining Division on page 121, Fuel Division on page 123, Machine Building Division on page 125, Power engineering Division on page 127, Nuclear Weapons Complex on page 107, Engineering on the page 130 and Nuclear and Radiation Safety and Comprehensive Solution to Problems of Nuclear Legacy on page 141.

Plans for 2013 and the mid-term period

- the implementation of high-priority industry projects of ROSATOM State Corporation entities,
- the development of RPS leaders with skills of practical application in production system tools,
- the ongoing involvement of employees in active problem-solving in the area of production efficiency.

The major goal of RPS is to bring the indicators of operational efficiency of ROSATOM State Corporation entities to the level of best international practice by 2020.

3.3.2. ENHANCING THE EFFICIENCY OF NPP OPERATION

Results in 2012

- the useful lives of power generation units were extended and their stable operation was ensured (in 2012, power generation units with extended lifecycles generated 69 bln kWh),
- the total length of repairs was reduced (in 2012, the total period of repairs decreased by 107 days, ensuring an additional generation of 2.2 bln kWh),
- R&D was performed to increase the heat capacity of power generation unit No. 4 at Balakovskaya NPP to 107–110%,
- work was commenced to improve the life characteristics of the first-generation, high-power, pressure-tube reactors and to substantiate the admissible limits of their safe operation,
- the potential of NPP capacity growth from increase in the base load (PSPP, accumulators) was analyzed,
- the development of WER-TOI project for serial construction of NPP power generation units was completed.

3.3.3. NPP CONSTRUCTION COST MANAGEMENT

Results in 2012

- the verification of estimates for costs of works and services under 2012 additional agreements to construction contracts of Novovoronezhskaya NPP-2, Leningradskaya NPP-2, Rostovskaya NPP, Beloyarskaya NPP, Baltiyskaya NPP, Kalininskaya NPP was carried out;
- pricing was verified in completion certificates (KC-2) and certificates of the price of works performed and costs (KC-3) for NPP under construction;
- 13,484 completion certificates were received for the total amount of 13,059.6 mln RUB including VAT;
- decisions were issued on the beginning of preparatory works prior to approval of the project documentation and consolidated cost estimate for NPP Akkuyu projects;
- the implementation of Belorusskaya NPP project was controlled.

The following are key results of 2012 in industry pricing and construction cost estimates:

- a single industry policy of cost management was developed,
- single industry methodological guidelines for development and maintenance of the industry register of cost estimates were approved,
- methodological guidelines to estimate the cost of general contracting services were developed,
- a plan for ROSATOM Estimate Code development was approved,
- a concept of industry pricing was developed,
- instruction on the establishment of the nuclear industry pricing commission was developed,
- a plan to create an information system “Industry Construction Database for ROSATOM State Corporation” was approved.

Results in 2012

**Federal target programs and state defense procurement
Consideration of applications for open procurement procedures
of equipment supply**

612 applications were submitted, 581 approved

mln RUB, including VAT

Initial amount of applications	7,365.1
Approved to the amount of	6,843.8
Reduction amount	521.3 (7.08%)

**Investment facilities (NPP)
Consideration of applications for open procurement procedures of equipment
supply (except long-lead equipment)**

27 applications were submitted, 5 approved

27 applications were received to the total amount of	9,616.8
16 were returned for revision, 6 do not require approval	7,446.3
The initial amount of 5 approved applications	2,170.5
Approved to the amount of	1,866.2
Reduction amount	304.3 (14.02%)

**Investment facilities (NPP)
Consideration of applications for open procurement procedures for construction
and installation, pre-commissioning, design and survey**

89 applications were submitted, 62 approved

89 applications were received to the total amount of	50,894.0
14 were returned for revision	10,460.5
13 do not require approval (withdrawn)	4,301.6
The initial amount of 62 approved applications	36,131.9
Approved to the amount of	34,581.4
Reduction amount	1,550.5 (4.29%)

**Plans for 2013 and
the mid-term period**

- an update of the industry methodology of estimating planned indicators of translating the basic value of nuclear power generation facilities construction to the projected level of prices;
- control over the use of the approved estimate limit in terms of the capital investment structure during construction;
- expertise of applications in terms of identification of the starting (maximum) price for equipment and materials in the course of order placement for NPP under the Federal target investment program and state defense procurement;
- the monitoring and analysis of equipment and materials market value;
- the work of field teams and desk audits of the target and efficient use of investments;
- the work of field teams for work measurement to monitor the current and develop the new industry estimates (Rostovskaya NPP, Leningradskaya NPP-2, Baltiyskaya NPP);
- the development of indices for the current price levels for construction of Novovoronezhskaya NPP-2, Rostovskaya NPP, Leningradskaya NPP-2 facilities;
- the development of industry references of the current prices of materials, products and constructions to build facilities of Rostovskaya NPP, Novovoronezhskaya NPP-2, Leningradskaya NPP-2, Baltiyskaya NPP;
- the development of the industry construction database of ROSATOM State Corporation.

3.3.4. PROCUREMENT MANAGEMENT



Roman Zimonas, Director for Procurement, Director of Procurement Management Methodology and Organization Department

How do you assess the results of the annual procurement program?

For us, the year 2012 was dynamic and successful. We focused on federal budget disbursement, particularly state defense procurement and implementation of the federal target programs. We fulfilled the procurement plan ahead of schedule year on year. And the main result in the overall economy amounts to 20 billion RUB.

What are the plans for improvement of the procurement system?

In 2012, we finalized the automation of the system of procurement management based on SAP SRM. In this area we are to develop a single

industry pricing database which will enable us to automate the calculation of the initial maximum contract price. We are also planning to begin publishing the data on performance under contracts of open competitive purchase procedures at the web site (www.zakupki.rosatom.ru).

We pay particular attention to methodological aspects of the system development. Much was done in 2012 to standardize selection and assessment requirements to suppliers, the work is to be continued in the next year. On the one hand, it enables us to reduce the periods of procurement documentation drafting and alignment, and on the other hand it allows avoiding excessive qualification demands for suppliers.

We have also recently launched a project of procurement, which requires entities to plan purchases better, optimize inventory volumes and introduce a special system of stock-taking.

As the volume of open competitive purchases increases, we intend to achieve a reduction in the number of procedures by merging lots, consolidating orders for purchase and long-term contracts.

We analyze the international practice of using equipment attestation systems. Introduction of such a system will enable us to exclude as participants of competitive purchases those suppliers whose production conditions will definitely not allow them to ensure production of the

required quality equipment. It is also improving the efficiency of procurement.

And, of course, we are additionally aiming for closer cooperation with our buyers, suppliers and organizations interested in supplying goods and services to nuclear industry entities. We will continue to develop education, regularly updating training programs and holding workshops at our Corporate Academy. Incidentally, in 2012 over 1700 employees of the industry and suppliers were trained this way.

We noticed that measures to enhance the awareness of suppliers and buyers of the key principles and characteristics of the procurement system organization in the nuclear industry are not always sufficient. In Russian regions we face a problem of the lack of experience in dealing with electronic trading platforms and a shortage of qualified personnel. It is particularly true for small and medium enterprises. To solve these problems, we are planning to develop a regional network of educational centers working similarly to our Corporate Academy. We also intend to hold a number of regional forums in the near future to discuss our cooperation openly with suppliers and potential partners.

Mechanisms to increase the openness and transparency of procurement

To ensure the openness and information transparency of procurement the Corporation uses the following:

- standardized procedures, including those to calculate initial (maximum) prices, consider applications from participants, estimate the sufficiency of financial resources for procurement participants, as well as typical procurement documents (all documents are in public access),
- an increase in the proportion of electronic competitive procedures;
- application of the rebidding procedure in competitive procedures,
- possibility of alternative applications,
- setting the current-year initial (maximum) price at the level of the previous-year actual price,
- the standardization of contract drafts,

- the standardization of document forms in applications,
- the standardization of procurement procedure documentation and order placement documentation,
- the standardization of minutes of procurement procedures,

- standard criteria for selection and assessment to be applied to every participant,
- the signing of long-term contracts with a fixed price for the whole period of the contract term.

The main document, regulating procurement of ROSATOM State Corporation is the single industry standard of procurement (Regulation on procurement).

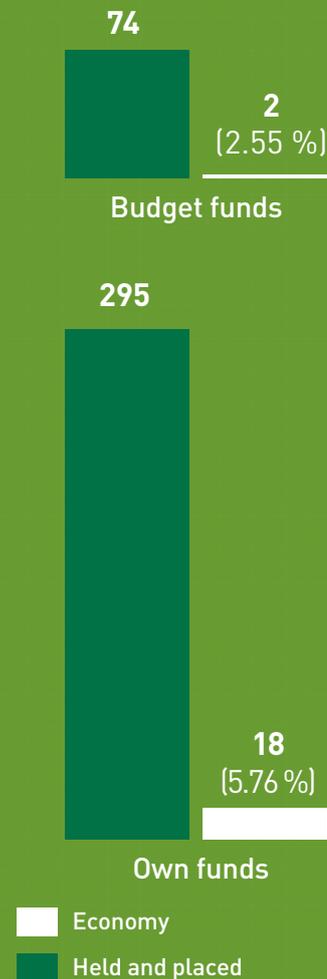
Management and control bodies:

- the Central Procurement Commission of ROSATOM State Corporation,
- Standing Procurement Commissions,
- the Department of Internal Control and Audit of ROSATOM State Corporation,
- the Central Arbitration Committee of ROSATOM State Corporation and arbitration committees of divisions.

Website listing ROSATOM's purchases: www.zakupki.rosatom.ru

Key performance results

Key results of the procurement system of ROSATOM State Corporation in 2012, bln RUB



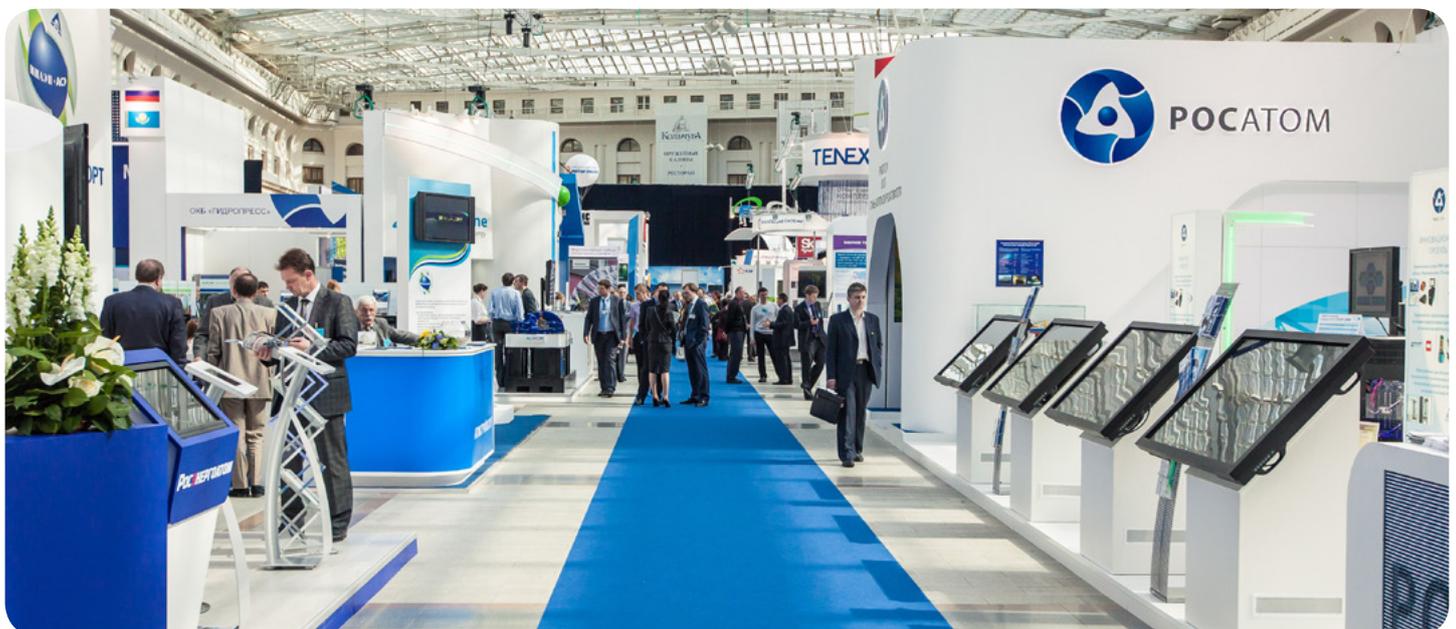
Volume of competitive procurement of ROSATOM State Corporation and total economy of funds, bln RUB*

Indicator	2012	2011	2010
Total amount of open competitive procurement placement	389.0	454.5	166.4
From own funds of ROSATOM State Corporation	313.0	418.3	145.0
From the federal budget	76.0	36.2	21.4
Total economy of funds	20.0 (5.1%)	31.5 (6.9%)	19.7 (10.6%)
Economy of own funds	18.0 (5.8%)	27.9 (6.7%)	18.0 (11.0%)
Economy of the federal budget funds	2.0 (2.6%)	3.6 (10.1%)	1.7 (7.3%)

* shows percentage of the economy indicating actual economy from competitive procurement procedures resulting in contract signing

Plans for 2013 and the mid-term period

- as the volume of open competitive purchases grows, reduce their number by merging lots, consolidating orders for purchase and long-term contracts;
- the standardization of the criteria for the assessment and selection of participants,
- the standardization of lots for all construction and supply of material and technical resources and equipment for NPP with a view to unification and holding similar purchases of construction works and equipment for NPP,
- the introduction of a system of material and technical procurement,
- the introduction of a system of NPP equipment attestation, enabling the exclusion, as participants with competitive bids, of those manufacturers whose production conditions will definitely not allow them to ensure production of equipment of the required quality,
- the automation of procurement:
 - the development of a standardized industry pricing database,
 - the integration of a standardized industry system of procurement and an official RF website to post information on purchases by individual legal entities at <http://zakupki.gov.ru/223/>,
 - the publication of data on performance concerning contracts of open competitive purchase procedures at the website of ROSATOM State Corporation procurement at www.zakupki.rosatom.ru,
- the introduction of upgrades to systems of the standardized industry system of electronic documentation, SAP SRM and AS PIRZ to ensure the automated control of KPIs.



3.4. Human Capital Management

Human capital management involves building the ability to understand, develop and effectively implement the strategy of ROSATOM State Corporation for employees, including top management.



Dmitry Bulavinov,
HR Director

What do you think is the role and significance of human capital for achievement of the strategic aim of the global technological leadership?

In the age of globalization that the world has been facing since the turn of the 21st century, competition has completely shifted from the area of technologies and finance to human capital, as today the main competitive advantage is corporate management culture. Its level is a key driver of outstanding performance as compared to other companies, the development of innovative technologies and their swifter implementation. Culture is conveyed not by machinery, technologies or money, but by people. Therefore, the best companies of the world are making unprecedented investments in “raising” people, preparing today’s and tomorrow’s leaders for global challenges, and in the development of the management culture efficient at a global level. To become a real global leader, particularly in the high-tech sector, it is crucial to create attractive models of governance and offer them on a global scale, and only people can do that.

How important is it for ROSATOM to cooperate with the leading higher and secondary professional education institutions?

The strategy in the development of the Russian nuclear industry, strengthening its position as the leader in technology and innovation on the domestic market and aspiring to leadership of the global market, showed by 2009-2010 that there is a critical need to support and develop the human resources commensurate with the scale and ambition of these goals.

The major risks for HR potential were the trends of the overall decrease in the number of prospective students due to an unfavorable demographic situation in the country and reduced demand for engineering and technical education. As a result, we can see a decline in the quality of school education, including those school graduates who select nuclear physics as their field of study, and the quality of the students’ professional training.

To minimize these risks, the State Corporation began implementing a target program. It involves large-scale efforts, from establishing a unique mechanism of monitoring and projecting the number of students in 160 fields and areas of higher professional education for the next 6 years and building an industry order for professional training on the basis of these data; to the foundation of the National Nuclear Innovation Consortium, covering the country’s leading nuclear higher education institutions, research centers, social and professional organizations. The Consortium was established to ensure the professional certification of university graduates’ qualification as a basis for their recruitment in organizations of the nuclear industry and appointment to relevant positions. Moreover, the Consortium is to provide for the social and professional accreditation of educational programs of higher education institutions in terms of their correspondence with employers’ requirements. Annual investment in this program exceeds 500 mln RUB.

And now let us discuss the results we achieved in 2012. For the first time in the last 10 years, the number of schoolchildren choosing to

do the state examination in physics grew: from 185 thousand to 206 thousand. Our partner university NRNU MEPhI ranked 6th among the Russian higher education institutes in the average state exam results of its new students in 2012. As for surveys of employer attractiveness, ROSATOM companies are leaders among graduates of education institutions in the field (14 engineering and technical institutions providing for 90% of graduate recruitment). Nowadays, our organizations annually recruit almost 2000 graduates as young professionals and over 5,000 students are involved in practical training or internship at our companies.

How does the corporate motivation system work?

A characteristic feature of the personnel motivation system at the State Corporation is a combination of financial and non-financial incentives. The system of remuneration is based on annual KPI setting and assessment of their achievement by each manager. Last year, over 3 thousand employees of the industry were awarded with industry badges of distinction, and the work of almost 200 employees was distinguished with national and governmental awards. But the key motivation factor in the nuclear industry, to my mind, is the nature of tasks performed by our employees: there is nothing equal to ROSATOM in their scale, ambitiousness and importance for the country’s future.

In 2011, we launched a project to survey and improve personnel involvement. It analyzed the entire system of factors (not only financial and non-financial incentives), influencing the motivation to work more and better. And here we achieved a qualitative improvement: the industry involvement indicator amounted to 68% in 2012, and certain entities — OJSC Techsnabexport, Bala-kovskaya NPP — reached the level of best employers not only in Russia,

but also in the whole of Europe with an indicator of around 90%. But the most important thing about involvement is not the percentage, of course, but a constructive dialog established between the management and the employees on major issues impacting work efficiency. Crucial drivers of this were the information days, on which over 200 thousand industry employees quarterly receive the most current updates on what is going on in the industry, the division and the company from their immediate superiors and can ask questions on any subject of interest.

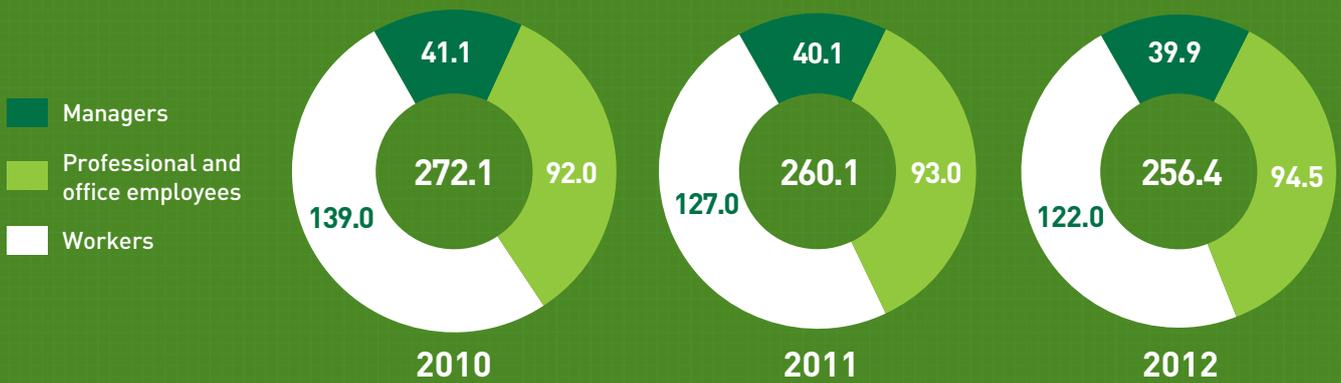
What are the priorities of HR for the next few years?

A key priority of the industry HR is development of the talent management system, implementation of which started in 2012. It focuses on the ongoing identification, development and promotion of employees and managers with the potential to become ROSATOM leaders, oriented to tasks of long-term strategy of growth and able to carry out changes brought about by the challenges of the global economy. A major step in this area

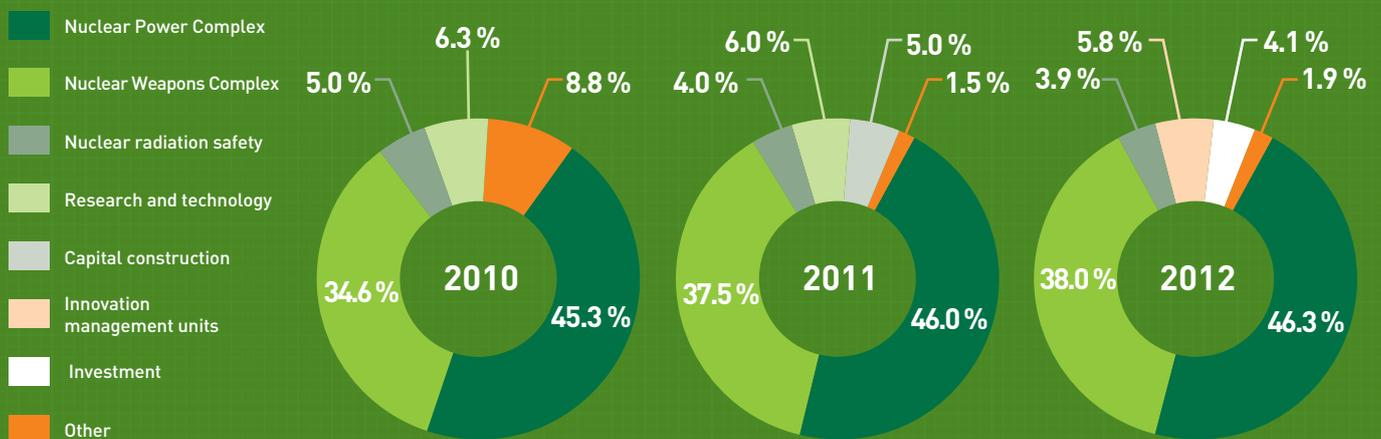
is to complete the development of ROSATOM Corporate Academy as an industry center for the development of corporate and business competencies, leadership and promotion of the corporate culture, fostering in our employees the responsibility for self-development and career growth, professional and public recognition, their own life and the future of the nuclear industry.

HUMAN CAPITAL CHARACTERISTICS

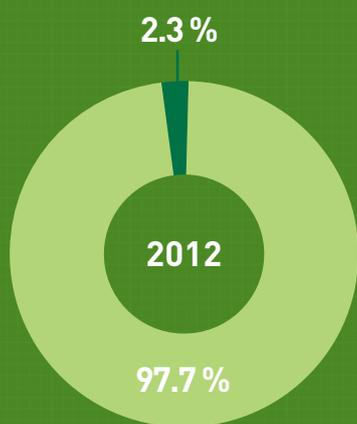
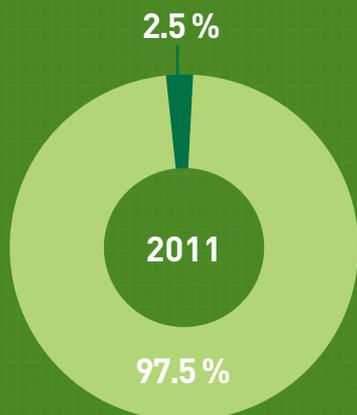
Average headcount of ROSATOM State Corporation by employee category, thous. persons*



Average staff list by business types

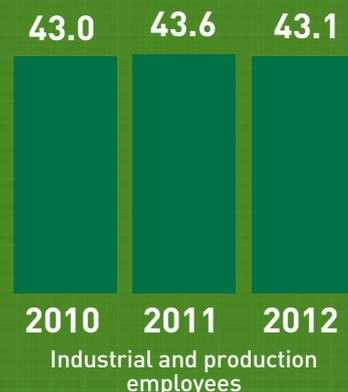


Share of industrial and production employees

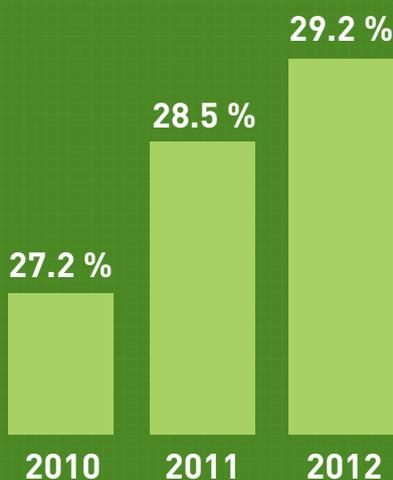


- Industrial and production employees
- Non-production employees

Average age of personnel, years



Share of professionals younger than 35



Number of PhDs

4,500 people

Employee Turnover at the Corporation



- Number of employees released, thous. persons
- Including those as a result of optimizational changes
- Employee turnover net of those released due to optimization, %

3.4.1. PERSONNEL MANAGEMENT STRATEGY

Strategic goals of ROSATOM State Corporation in HR:

- enhancing the Corporation's attractiveness as an employer, both for graduates of higher education institutions and experienced professionals and executives,
- implementation of standardized corporate policies on efficiency management, career management and manager training within the industry,
- training of a talent pool for the target positions of managers at various levels

- enhancing employee engagement.

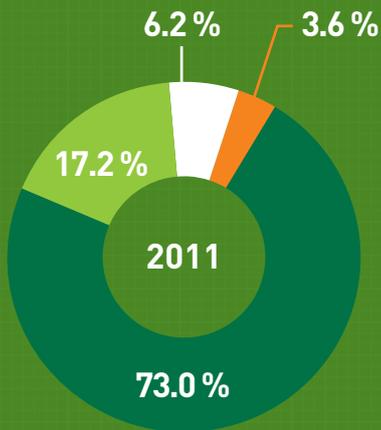
The key processes aimed at boosting the efficiency of HR functions are the automation of HR processes, setting KPI for HR managers, the unification of organizational structures in personnel management, the transfer of transactional processes of personnel management to a single service center. Implementation of these processes will improve the performance of HR functions by over 20% by 2015.

3.4.2. LABOR PAYMENT SYSTEM

Personnel costs

The total amount of personnel expenses was 212 bln RUB in 2012, which is 10.8% higher than 2011. Annual expenses per employee grew from 736.0 thous. RUB in 2011 to 826.8 thous. RUB in 2012 (by 12%).

Personnel cost breakdown



- Employee payroll
- Insurance payments
- Social expenses
- Other personnel costs (including training)

Standard unified system of labor remuneration

The corporate (industry) system of labor remuneration ensures the following:

- performance-based pay: an enhanced link between the employee’s financial remuneration with performance and compliance with key performance indicators. KPI of the ROSATOM State Corporation managers are oriented to the achievement of strategic goals and KPI set by the Supervisory Board for the Corporation, and the strategic goals set for organizations and entities are transformed to KPI maps of individual managers and cascaded

down to structural divisions and employees. Individual KPI maps were developed under a single corporate standard for approximately 11 thous. managers of organizations;

- a respectable level of remuneration: in 2012, the average monthly labor costs per employee grew by 12% compared to 2011 to reach 50 thous. RUB. The average salary in the Corporation is 37% higher than the Russian average (according to the Federal State Statistics Service, in December 2012, the average monthly salary in Russia was 36.5 thous. RUB).

3.4.3. IMPLEMENTATION OF SOCIAL POLICY

SOCIAL PARTNERSHIP

The Russian Trade Union of Nuclear Power and Industry Workers (Profatom, www.profatom.ru) includes employees of joint-stock companies, state and municipal entities and organizations, as well as students and the retired. The total number of union members as of December 31, 2012 amounts to 375,103 persons. Profatom covers 155 primary, unified and territorial trade union organizations in 47 subjects of the RF.

As of 31.12.2012, collective agreements apply to 143 companies of the State Corporation ROSATOM. The number of participants in collective bargaining is over 192,000 people.

For details see the e-version of the Annual Report

UNIFIED SOCIAL POLICY OF ROSATOM STATE CORPORATION

In 2012, mid-term priorities of ROSATOM State Corporation social activities were identified:

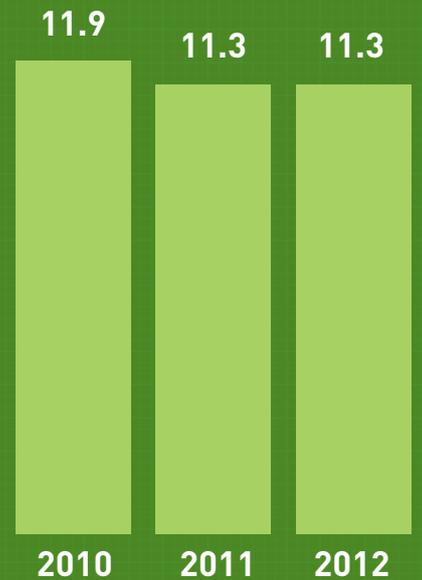
To perform the Corporation’s liabilities under the Industry Agreement for 2012–2014, a standardised methodology for budgeting, standardization and accounting of social expenses was approved.

- to maintain the level of social benefits for employees and retired persons,
- to protect employees’ lives and health,
- to increase the standard of living by improving housing,
- to provide for the quality of lives of retired employees.

Within the framework of the unified social policy of ROSATOM State Corporation and its organizations, the standardization of corporate social programs was continued. The industry commission on the regulation of social and labor relations approved yet another program – support of retired persons.

The total amount of social expenses for employees was 11.3 bln RUB in 2012.

Social expenditure per employee, bln RUB



Key corporate social programs of ROSATOM State Corporation

Corporate social programs	Financing, bln RUB			Results in 2012
	2012	2011	2010	
Medical insurance	1.2	1.4	1.1	The system of voluntary medical insurance covers 169,972 persons*
Health resort treatment and vacations for employees and their children, including:	1.0	1.0	1.2	
Health resort and convalescent treatment for employees	0.8	0.9	1.0	34.8 thous. employees were provided with health resort and convalescent treatment, including: - 17.5 thous. at health resort facilities; - 17.3 thous. at industry health and recreation resorts.
Health resort and recreation for children	0.2	0.1	0.2	Spa treatment and health-improving recreation was organized for 11 thous. children of employees.
Health and accident insurance	0.1	0.1	0.1	The system health and accident insurance covers 122 thous. employees.
Housing provision to employees	0.4	0.2	1.7	The program involves 9,379 employees, 2,225 of them improved their housing conditions in 2012, including 46% young professionals.
Pension provision	1.2	1.9	2.0	Non-governmental pensions were received by 35.6 thous. retired employees in 2012. The program of non-governmental pension provision covers over 60.5 thous. employees (over 23.7% employees of the industry). 14.4 thous. persons participated in the program of non-governmental pension provision on the basis of co-financing by the end of 2012.
Support of veterans and retired employees	2.0	1.1	2.5	Over 120 thous. retired employees are registered in industry organizations. Almost 9.5 thous. retired employees were provided with voluntary health insurance policies. 1.5 thous. retired employees received assistance by means of provision of tours to health resorts. Over 5 thous. retired employees received medical assistance at recreation resorts of organizations. Over 5 thous. retired employees received one-off retirement payments. The average amount of payment per retired employee exceeded 160 thous. RUB. 37.5 thous. retired employees receive additional monthly payments together with the governmental pension. The average monthly additional payment per retired employee is 1,000 RUB. Over 111 thous. retired employees received financial assistance.
Organization of catering for employees	0.4	1.1	0.8	Almost 13 thous. employees receive meal allowance.
Assistance to employees	1.2	1.4	1.2	In 2012, assistance was granted to over 66 thous. employees (12 thous. more than in 2011).
Other	1.8	2.7	0.7	Includes various social benefits (public transport allowance etc.), as well as expenses on the maintenance of social infrastructure facilities.
Total:	10.3	11.9	12.5	

Non-financial incentives

ROSATOM State Corporation implements a system of non-financial staff motivation, based on badges for industry distinction. Timely and commensurate encouragement helps to build a feeling of ownership of corporate goals among employees, enhances interest in improving the efficiency of their own work, work of their company and the Corporation in general. A significant tool of collective and individual employee motivation is the recommendation of high-flyers for governmental and national awards.

In 2012, 160 employees received national and governmental awards. Over 15 thous. employees were honoured by ROSATOM State Corporation, including over 9 thous. employees who received the labor distinction badge "Veteran of the Nuclear Power Generation Industry".

Involvement level survey

ROSATOM State Corporation has been surveying involvement since 2011. Involvement is the emotional and intellectual state that motivates employees to do their best in their work. Involvement research is used to diagnose the attitude of employees to their work and the company, as well as to assess the performance of managers and HR functions. In 2012, the survey covered 49 organizations (in 2011 there were 45), over 40 thous. persons were polled. According to the results of the involvement survey, in 2012, employee involvement in organizations of ROSATOM State Corporation amounted to 62% (in 2011 – 60%). The target is to reach in 3-5 years the level of involvement shown by global technological industry leaders – no less than 70%.

For details see the e-version of the Annual Report

In 2012, ROSATOM State Corporation held four information days. Information days are communication events held quarterly in companies of the nuclear industry and ROSATOM State Corporation, starting 2011. Their aims are:

- to communicate important information to employees – what is going on in the industry, why and how certain specific steps and decisions are made,
- to organize a dialog with the top management in the industry, explain the situation and prospects of the Corporation`s business.

3.4.4. INCREASING THE EFFICIENCY OF HR MANAGEMENT

In 2012, ROSATOM State Corporation continued to implement the unified system of personnel efficiency management ("Record" system). It enables assessment of employee performance, management of the development of competencies (outlining an individual development plan for each employee), building a primary pool of candidates for the talent pool and other target programs.

In the reporting year, the system of assessment was spread to cover 22,979 employees of the industry organizations.

In 2012, a program of employee training and information was implemented, including training under the updated program "Performance management" for managers and internal coaches on the basis of the Corporate Academy of ROSATOM State Corporation.

3.4.5. BUILDING AND USING TALENT POOLS

A talent pool is a specially selected group of employees for targeted training and further appointment to key positions in organizations of the nuclear industry.

Its key objectives include to

- create an industry talent pool system with unified criteria (of selection, assessment, development, appointments);
- provide the Corporation with trained management.

In 2012, a concept of the single industry talent pool was developed including three levels of management: ROSATOM Assets, ROSATOM Capital and ROSATOM Talent.

ROSATOM State Corporation Talent Pool



In 2012, standardized industry criteria for talent selection were developed:

- indicators of annual efficiency assessment "Record" (assessment of performance, compliance with KPI, level of competencies development);
- professional experience (qualifications, management experience);
- formal criteria (age, position, education);
- results of assessment of individual abilities, management competencies, potential and motivation for professional development.

As of December 31, 2012, the talent pool included 190 persons. In 2012, 20% of the total management vacancies were filled by the talent pool. The number of people appointed to positions from the talent pool was 7 persons.

 For details see the e-version of the Annual Report

3.4.6. HR TRAINING

Education and advanced training of personnel

The system of personnel training at ROSATOM State Corporation includes studies within higher and secondary professional education programs, as well as training, retraining and advanced training on the basis of CIAT and the Corporate Academy of ROSATOM State Corporation.

The total training expenses of ROSATOM State Corporation were 867.7 mln RUB in 2012.

ROSATOM State Corporation Academy

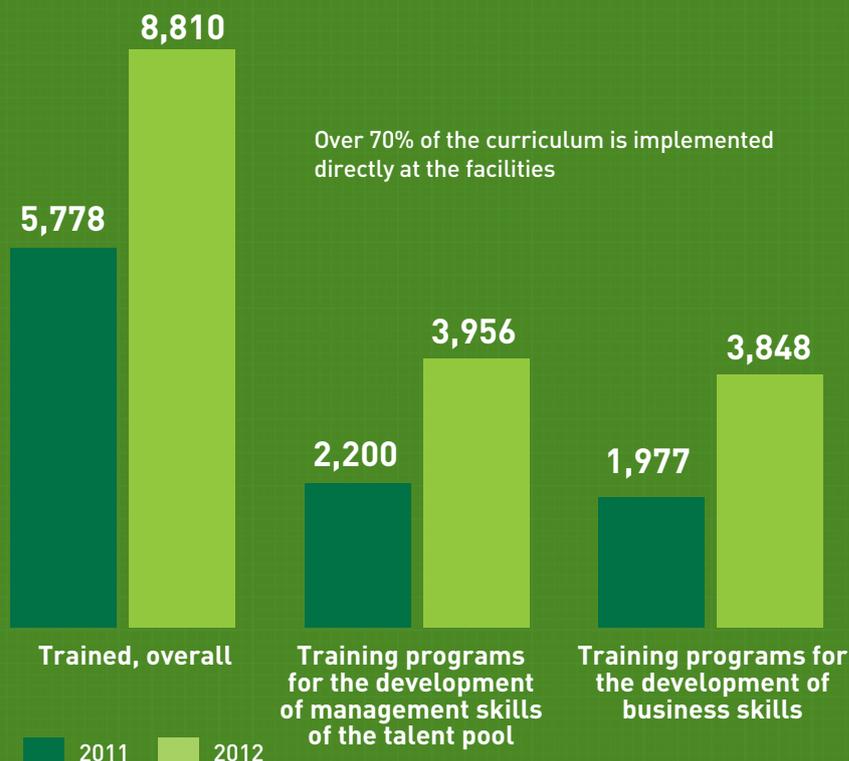
The business of ROSATOM State Corporation Academy, which used to function on the basis of CIAT Moscow branch, was transferred in 2012 to a separate legal entity — NPO ROSATOM State Corporation Academy.

 For details see the e-version of the Annual Report

Over 2,100 people have been evaluated by the sectoral assessment center of ROSATOM's Corporate Academy (in 2011 — 1500 people), including more than 800 people as part of the TOP-100 project.

 For details see the e-version of the Annual Report

Personnel education in ROSATOM



Plans for 2013 and the mid-term period

- by 2016, over 70 thous. persons are to be trained in the programs of the Corporate Academy, over 30 thous. of them are managers (over 75% of the total number of managers in the nuclear industry);
- by 2015, training at the Academy will be carried out in more than 100 programs, oriented at key strategic areas of the nuclear industry development, including ones in the English language;
- by 2015, 30% of the Academy programs will be based on the intra-industry distant education system using webinars and multimedia courses;
- by 2017, the Corporate Academy will be the leader in Russia and one of the world's best corporate education structures.

The Central Institute for Advanced Training

The Central Institute for Advanced Training (CIAT) has been providing advanced training to nuclear industry executives and professionals for more than 40 years.

The total number of employees trained in 2012 (net of the Corporate Academy, which operated on the basis of the

Moscow branch) was 11,173 persons* (in 2010 — 6,799 persons, in 2011 — 9,417 persons).

 For details see the e-version of the Annual Report

International Activities

In 2012, the Central Institute for Advanced Training, CIAT, continued development of educational courses for training professionals for the national nuclear infrastructure of countries receiving Russian nuclear power technologies. Professionals from these countries were trained as well, such as professionals from the Vietnamese Agency for Radiation and Nuclear Safety and Vietnamese Agency for Atomic Power, professionals of the Nuclear Power Plant Agency of Egypt, professionals of the Turkish Agency for Atomic Power, lecturers and professors from Belorussian International Sakharov Environmental University, students from European countries (Italy, Slovakia, Romania).

 For details see the e-version of the Annual Report

Advanced training for employees of ROSATOM State Corporation in the system of further vocational education of NRNU MEPHI

In 2012, NRNU MEPHI took first place in the number of education programs winning the contest of the Presidential program for advanced training of engineers. Programs aimed at the development of professional competencies were developed, primarily for nuclear industry professionals, including the nuclear weapon complex.

The faculty of advanced training and retraining at NRNU MEPHI provided education for 3,369 employees of ROSATOM State Corporation.

 For details see the e-version of the Annual Report

3.4.7. RECRUITMENT

In 2012, a target admission quota was organized for educational institutions within the framework of the governmental plan to train research employees and professionals for organizations in the defense industry. In 2012, 860 persons entered over 50 higher education institutions in the fields related to organizations in the industry (in 2011 there were around 500). Industry requirements for the target training were formulated for 2013 covering 1,476 persons. The total number of students educated at higher education institutions in the target programs is over 2,100 persons in 2012, including those funded by organizations – 264. The amount of financing allocated by organizations to the target training of students was over 66 mln RUB in 2012.

Monitoring of those who graduated from educational institutions in 2012 was carried out regarding employment by nuclear industry organizations; moreover, projection up to 2018 was made concerning the number of specialists with higher and secondary vocational education necessary for meeting the industry needs. Nuclear industry organizations employed 1,615 graduates of higher educational institutions, including over 400 specialists from NRNU MEPHI and its branches.

 For details see the e-version of the Annual Report

Cooperation with higher education institutions

National Research Nuclear University at the Moscow Engineering Physics Institute (NRNU MEPHI)

Attracting and retaining talented youth in the industry, and the improvement and promotion of education in the area, are the goals of ROSATOM's projects to organize annual contests. Within this framework, 150 grants (5,000 RUB per month each) are awarded to students of higher education institutions in fields relevant to the nuclear industry; 100 awards (100,000 RUB each) are given to talented young researchers from nuclear industry organizations, and a contest of educational and reference books on nuclear energy generation is held.

It was for the first time in history that NRNU MEPHI has ranked among TOP 400 world's leading universities (Times Higher Education of World University Ranking). Out of over 4,000 universities all over the world included in the ranking, only two Russian higher educational institutions ranked among the world's TOP 400: Lomonosov Moscow State University (positions 201-225) and NRNU MEPHI (positions 226-250). In the ranking prepared by the National Training Foundation, NRNU MEPHI was the first among the 103 leading Russian universities and second among the 29 national research universities. In the ranking prepared by Expert RA rating agency, NRNU MEPHI ranked seventh in the TOP 100 leading Russian universities. In accordance with monitoring carried out by the Ministry of Education and Science of Russia in 2012, NRNU MEPHI ranked among the most effective higher educational institutions.

To provide highly qualified professionals to innovative fields of the nuclear industry, in 2012, ROSATOM State Corporation held a career guidance campaign jointly with NRNU MEPHI. A planned admission strategy for all (including industry-specific) fields was performed. NRNU MEPHI consolidated last year's success in increasing the quality of the students: grades for all faculties, including engineering, increased. The average state examination results of the new students increased from 77.01 in 2011 to 79.23 in 2012. This indicator considerably exceeds the country average and corresponds to 4th place in the rating of 139 technical higher education institutions in Russia⁶.

In cooperation with ROSATOM State Corporation, a model of nuclear industry qualifications certification system was developed and tested. A pilot certification was held for 79 graduates of NRNU MEPHI and employees of nuclear industry for compliance with the requirements of the professional standard on nuclear safety. In order to create an independent system for public and professional assessment of the quality of education in the nuclear industry, a Non-Profit Partnership, 'National Nuclear Innovative Consortium', was created; the Partnership comprises the Association of ROSATOM's key higher educational institutions, the National Research Centre 'Kurchatov Institute', the Nuclear Society of Russia and the largest employers in the industry, such as OJSC Rosenergoatom, ROSATOM's fuel company OJSC TVEL, OJSC Atomenergomash, CJSC Science and Innovations, OJSC Techsnabexport, SUE Institute of Experimental Physics and SUE Institute of Technical Physics.

Moreover, the following was achieved in 2012:

- ROSATOM State Corporation developed and tested in cooperation with NRNU MEPHI (www.mephi.ru) a model of nuclear industry qualifications certification system. A pilot certification was held for 79 graduates of NRNU MEPHI and employees of the industry for compliance with the requirements of the professional standard on nuclear safety;

⁶ The average state exam results rating was issued by RIA Novosti and the Higher School of Economics (HSE) under the joint project of public control over procedures of admission to higher education institutions as a prerequisite to ensuring equal access to education by order of the RF Civic Chamber. Monitoring of the 2012 student admission quality in accordance with state exam results to budget-sponsored places of state institutions was published at the <http://ria.ru/rt2012/> web site. Analysis of the admission results considered state examination results of full-time students who entered the first year of bachelor and specialist studies this year, including target entry and preferential students, but excluding the results of those who entered on the basis of contest results. The present report shows consolidated information prepared by NRNU MEPHI on the basis of this rating.

- the subjects of research carried out for the nuclear industry were expanded;
- a Russian national contest in physics and mathematics was held by ROSATOM, as well as a number of contests for schoolchildren of grades 8-11 in physics, mathematics and IT. Overall, in 2012, the number of events for schoolchildren doubled (from 105 in 2011 to 200 in 2012);
- ROSATOM career days were held in NRNU MEPHI, including a "Vacancy Fair". Career days involved over 50 organizations of the nuclear industry and over 5 thous. students and graduates of NRNU MEPHI and other higher-education institutions in the field;
- a new dormitory was purchased for the university branch in Sarov at the expense of the Corporation as part of the program to expand the stock of comfortable student dormitories of NRNU MEPHI in 2012.

In the reporting year, a program was implemented to expand the places at organizations of the nuclear industry for student internship in educational institutions in the field. In 2012, internships were held by over 5,530 students from higher-education institutions. Over 100 graduate students and lecturers of higher-education institutions had on-site training at companies in the industry in the reporting year.

Consortium of higher-education institutions with a special relationship to ROSATOM

The higher-education institutions association, Consortium of Higher-Education Institutions, with a special relationship to ROSATOM, continued its operation. It includes 14 higher professional education institutions in the field that educate future employees of the nuclear industry. These higher-education institutions cover over 80% of the industry's need for young professionals. In the reporting year, in cooperation with the Corporation, higher-education institutions of this association analyzed various aspects of industry requirements for professional training.

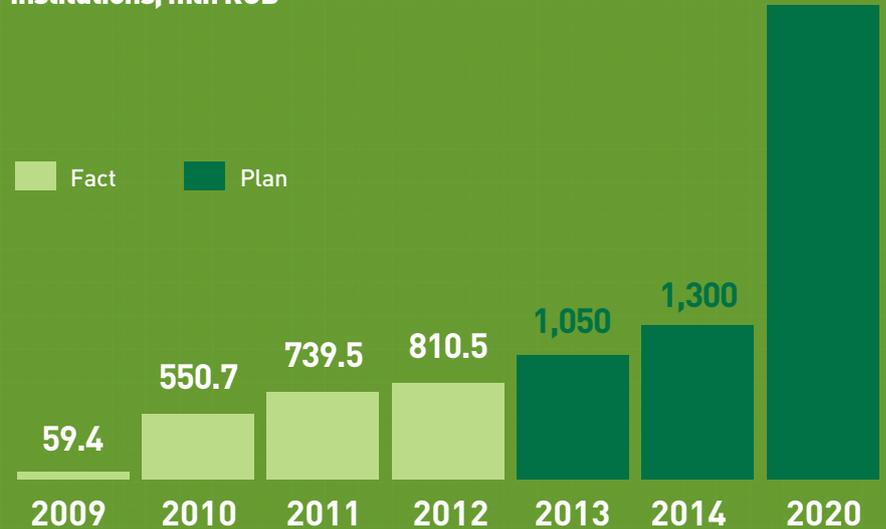
Academic cooperation

The Corporation's innovative development program stipulates considerable growth in joint research with universities in the field. The proportion of financing of R&D orders for higher-education institutions relative to the total R&D financing of the Corporation should reach 10% by 2020, which equals 4.3 bln RUB. Since 2009, there has been a positive trend of a growing number of the Corporation's R&D orders at field-specific universities. In 2012, the volume of R&D performed by higher-education institutions for the nuclear industry amounted to 810 mln RUB.

Organizations of the nuclear industry actively use the opportunities of the further vocational education system. In 2012, professional retraining and advanced training at higher education institutions reached out to 3,800 industry employees. Approximately 154 mln RUB was spent on this program.



Costs of R&D with higher-education institutions, mln RUB



International cooperation in Education

The system of exporting Russian education in the nuclear field to markets potentially of interest to ROSATOM State Corporation keeps developing.

In 2012, 136 students from Turkey, Vietnam and Mongolia entered the pre-university department of NRNU MEPHI branch in Obninsk. A group of Vietnamese students enrolled in a

Master's degree program (in English) at Tomsk Polytechnic University (Tomsk). The total number of students in the program of personnel training at the profile institutions for the Corporation's foreign facilities was 314 persons. The students achieve excellent results in their studies. Thus, foreign students continue to actively participate in 11 Russian and international contests.

For details see the e-version of the Annual Report

3.5. Intellectual Capital Management

Intellectual capital management includes managing knowledge, intellectual property, IT, etc.

3.5.1. KNOWLEDGE MANAGEMENT SYSTEM

To provide the infrastructure and support for implementing the innovative program "Development of the Nuclear Industry", in 2012, the Governing Board of ROSATOM State Corporation approved the Knowledge Management System Program (KMS) for 2012–2015 aimed at creating conditions which promote the increase in innovative activity.

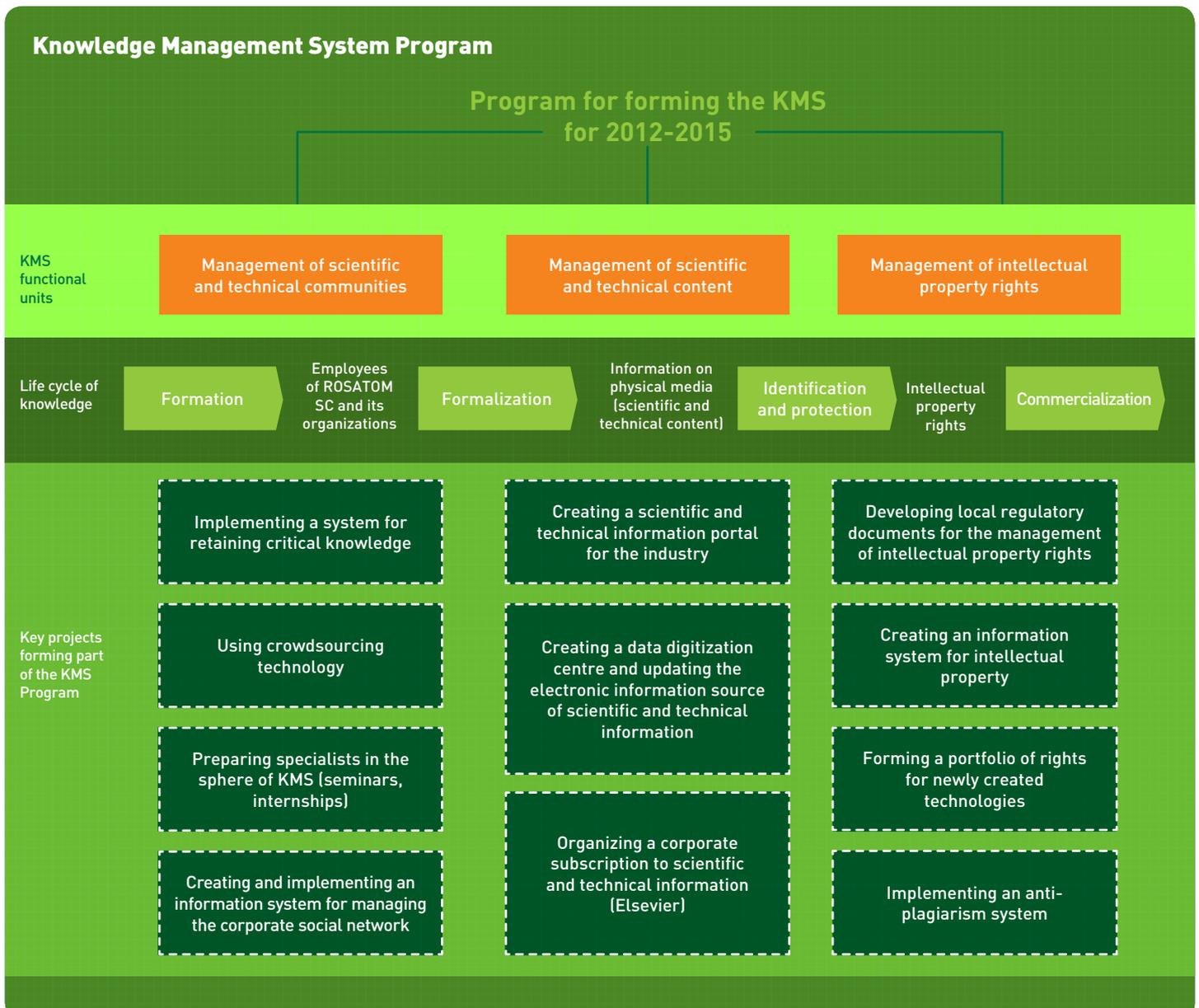
The Program mainly includes:

- providing researchers with state-of-the-art tools for working with scientific and technical information,
- developing and introducing regulations and rules for managing and commercializing intellectual property,
- increasing the proficiency of researchers, creating conditions for developing scientific and technical competence.

Stages of implementing the Program:

- 2012–2013: developing prototypes for the system, their regulation, description and introduction into organizations;
- 2014–2015: scaling the KMS at divisions of the Corporation and their organizations.

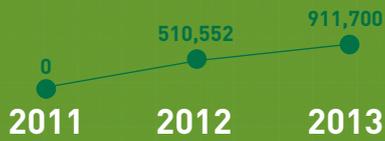
The transition to KMS target model is scheduled for 2015.



Key KMS indicators

Key KMS indicators have been established in order to implement the program successfully.

Number of digitized pages



Digitizing the archives of scientific and technical information began in 2011. In 2012, about 40% of archives were digitized. By the end of 2012 two mobile digitization centres had been created. By the end of 2013, it is planned to digitize over 900 thous. sheets involving existing resources.

Attendance at training workshops, attendees



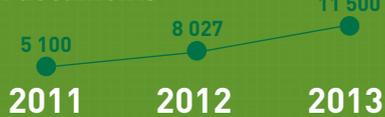
In 2012, an international conference "[Knowledge Management and Innovation: Lessons Learned from Technology Leaders](#)" was held; it was attended by representatives of the International Atomic Energy Agency (IAEA), the national regulatory bodies of the U.S. and France, international companies and organizations of the State Atomic Energy Corporation "ROSATOM". In 2013, it is planned to implement a training program for a knowledge management system and to hold six workshops covering various spheres of KMS.

Involvement of scientific experts in the social network, persons



In 2012, there was set up a pilot version of the information system for the management of the social network of scientific experts. Seven communities of practitioners, categorized by the sphere of KMS, were created. Commissioning of the pilot version involving the Corporation's employees and its organizations is scheduled for 2013.

Scientific and technical information portal, number of documents



As part of the scientific and technical information portal created, 9 collections of scientific and technical information have been formed. Collections are updated with new content and digitized archives.

Results in 2012

- the functions of the internal scientific and technical information portal were expanded, the structure of the industry classification system for scientific and technical information, as well as the industry thesaurus were developed, and the portal collections were updated;
- two mobile digitization centres were commissioned, and the digitisation of the historical archives of scientific organizations is being completed,
- tools for retaining critical knowledge in scientific organizations were developed and tested,

as part of the 56th annual session of the IAEA General Conference, a practical agreement in the sphere of knowledge management was signed by the IAEA and ROSATOM State Corporation; it stipulates joint initiatives in knowledge management in seven areas.

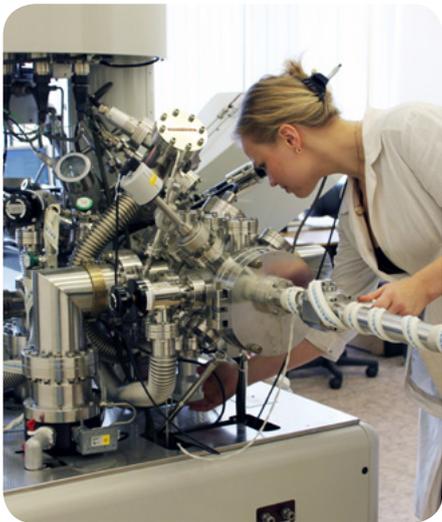
Involvement of industry employees in the system is an important indicator of the Knowledge Management System Program. In 2011-2012, the number of persons involved increased nine times.

Involvement in KMS



Plans for 2013 and for the medium term

- commissioning a pilot version of the corporate social network of experts,
- digitizing scientific and technical documents of organizations in the industry,
- certifying the Anti-Plagiarism system and putting it into commercial operation,
- implementing the personnel training program for the knowledge management system,
- taking three pilot measures for retaining critical knowledge in the organization and updating the corporate multimedia critical knowledge library.



3.5.2. INTELLECTUAL PROPERTY MANAGEMENT

Priorities of the Innovation management unit of ROSATOM State Corporation include developing industry standards and monitoring intellectual property management, as well as managing efficiency in this sphere.

The Corporation is using intellectual capital more extensively in innovative projects and the commercialization of intellectual property rights based on license agreements.

Results in 2012

- the creation of a target model of the business method for managing intellectual property in the nuclear power generation industry,
- the development of a concept and technical specifications for an information system for managing intellectual property at all stages of the life cycle,
- the formation of portfolios of intellectual property rights for key technologies of scientific organizations.

Plans for 2013 and for the medium term

- commissioning a pilot version of the corporate social network of experts,
- digitizing scientific and technical documents of organizations in the industry,
- certifying the Anti-Plagiarism system and putting it into commercial operation,
- implementing the personnel training program for the knowledge management system,
- taking three pilot measures for retaining critical knowledge in the organization and updating the corporate multimedia critical knowledge library.

In accordance with the license agreement concluded in 2012, ROSATOM State Corporation shall transfer the right to use those patents for inventions and useful models which are basic technical solutions forming part of the SVBR technology, to OJSC AKME-Engineering as payment for its additional share issue in order to implement a large-scale project on construction of the SVBR-100 reactor unit.

Results in 2012

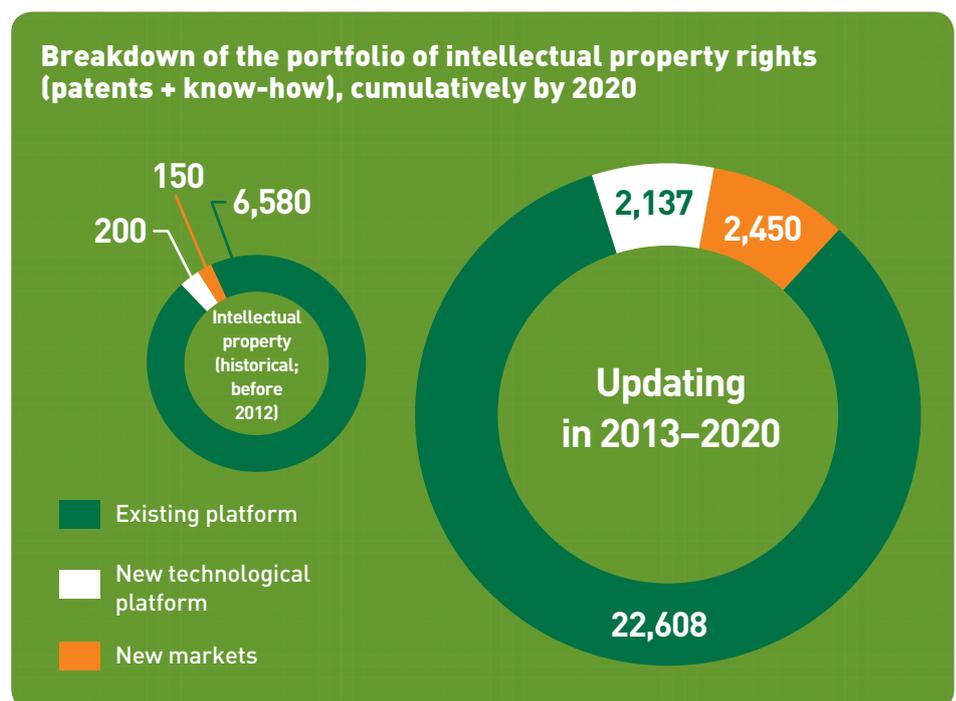
Indicator	2012	2011	2010
Number of applications submitted for state registration of protectable intellectual property, applications per year	466	357	278
Number of patents obtained for inventions, useful models and prototypes, certificates for PCs and databases, number of know-how registrations, per year	806	660	749

3.5.3. INTELLECTUAL PROPERTY MANAGEMENT

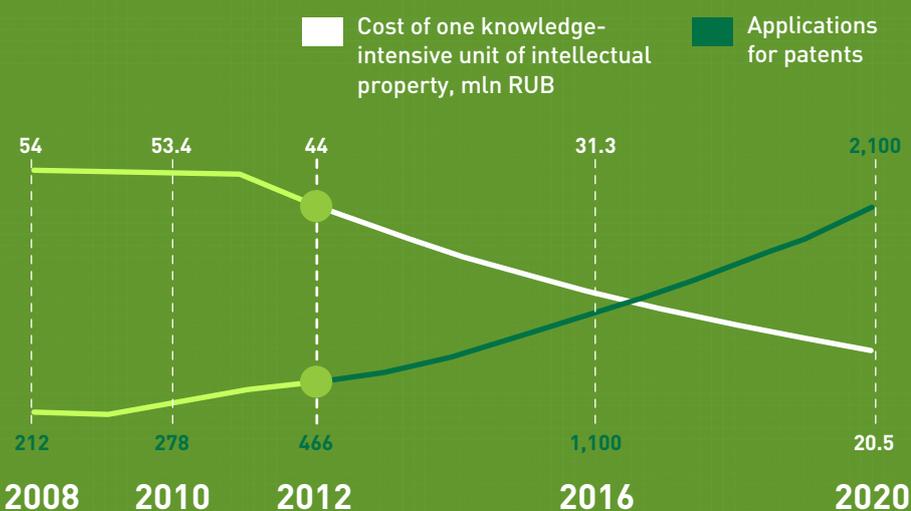
In 2011, unit costs incurred by the Corporation to create one knowledge-intensive unit of intellectual property amounted to about 53 mln RUB; in 2012 they were reduced to 44 mln RUB, while the number of applications submitted to the patent office increased from 357 in 2011 to 466 in 2012.

The forecast is that by 2020, the portfolio of ROSATOM State Corporation and its organizations will comprise over 27 thous. units of intellectual property (patents and know-how), out of which 2 thous. will be based on a new technological platform, and 2.5 thous. will involve using nuclear technologies in new markets.

Breakdown of the portfolio of intellectual property rights (patents + know-how), cumulatively by 2020



Number of applications for patents and their unit costs, per year*

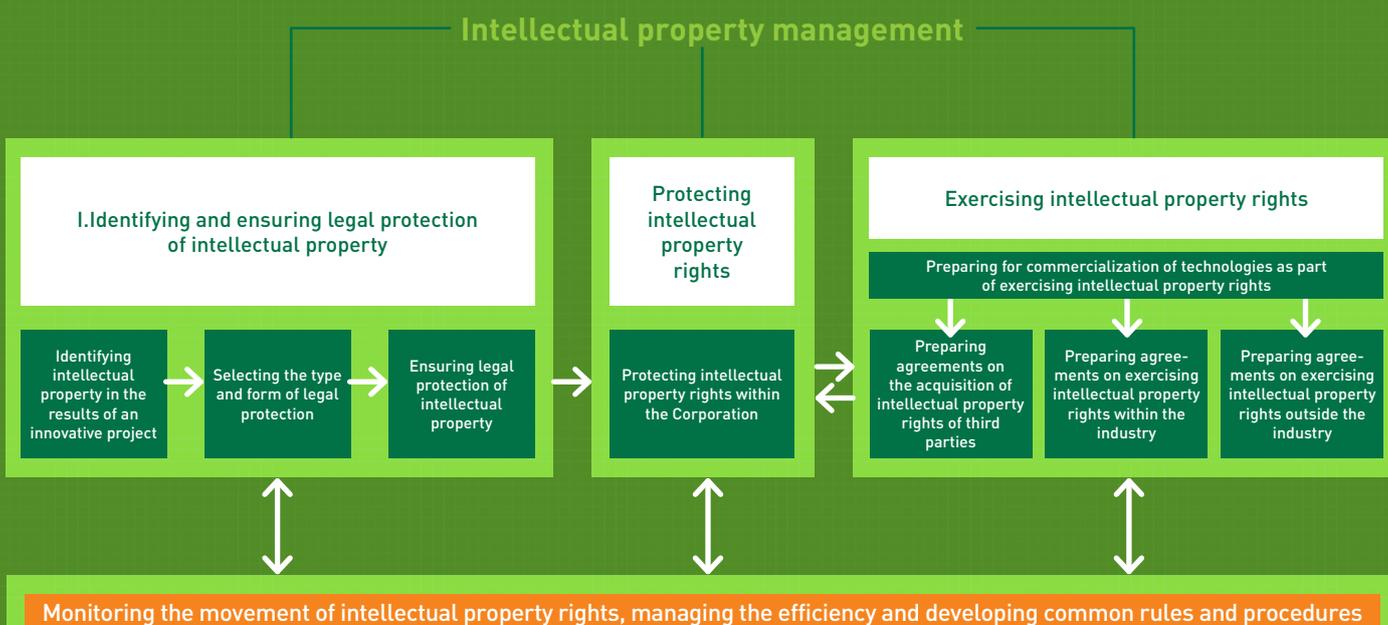


* to calculate the forecast for applications submitted for patents up to the end of 2020, the basic production cost of intellectual property was used, taking into account that average expenditure decreases by 10 % per year (calculated based on the R&D financing schedule up to 2020 in accordance with the investment development program).

Plans for 2013 and for the medium term

- halving the expenditure on creating one knowledge-intensive unit of intellectual property (reducing unit costs to 20 mln RUB),
- increasing the number of units of intellectual property created annually to 2,100,
- increasing patent registrations five-fold,
- ensuring the ratio of patents to know-how: one patent per two know-how units,
- creating 4,200 know-how units by 2020 which increases the level of legal protection and commercial value of technical solutions for which the patents were obtained.

Target model of intellectual property management



3.5.4. IT MANAGEMENT

In 2012, ROSATOM State Corporation continued to implement a program for transforming the corporate IT platform which includes over 100 projects and will be used up to 2015. Five areas are being transformed: business applications, industrial automation systems, IT infrastructure, information security, IT organization and services.

AT-Kearney, an international rating agency, recognized ROSATOM as the best customer-oriented company in the contest Best Innovator 2012–2013

For details see the e-version of the Annual Report

3.6. Social & Economic Capital Management

Social and economic capital management in operating regions includes managing social and economic programs in these regions, as well as investing in social infrastructure and ensuring effective cooperation with stakeholders.



**Anton Fedorov, Director
of Regional Liaison
Office**

The Corporation operates in many regions of Russia. Is there an integrated approach to organizing interaction with local communities?

At present, enterprises and organizations of ROSATOM are located in almost 40 regions; at the same time, as new facilities, primarily nuclear power plants, are constructed, the number of cities and regions where we operate is constantly increasing. Interaction with areas is based on the Corporation's general strategy which includes active government

and public relations, the generation and financial support of social and humanitarian projects. However, even if an integrated approach to everyone is possible, it is inefficient in our case. ROSATOM's facilities are located both in large central cities and in small remote settlements in the Extreme North and the Far East. An individual approach aimed at achieving certain objectives in certain areas is probably the clearest expression of our guiding principle.

Which achievements of 2012 in operating regions are the most remarkable ones?

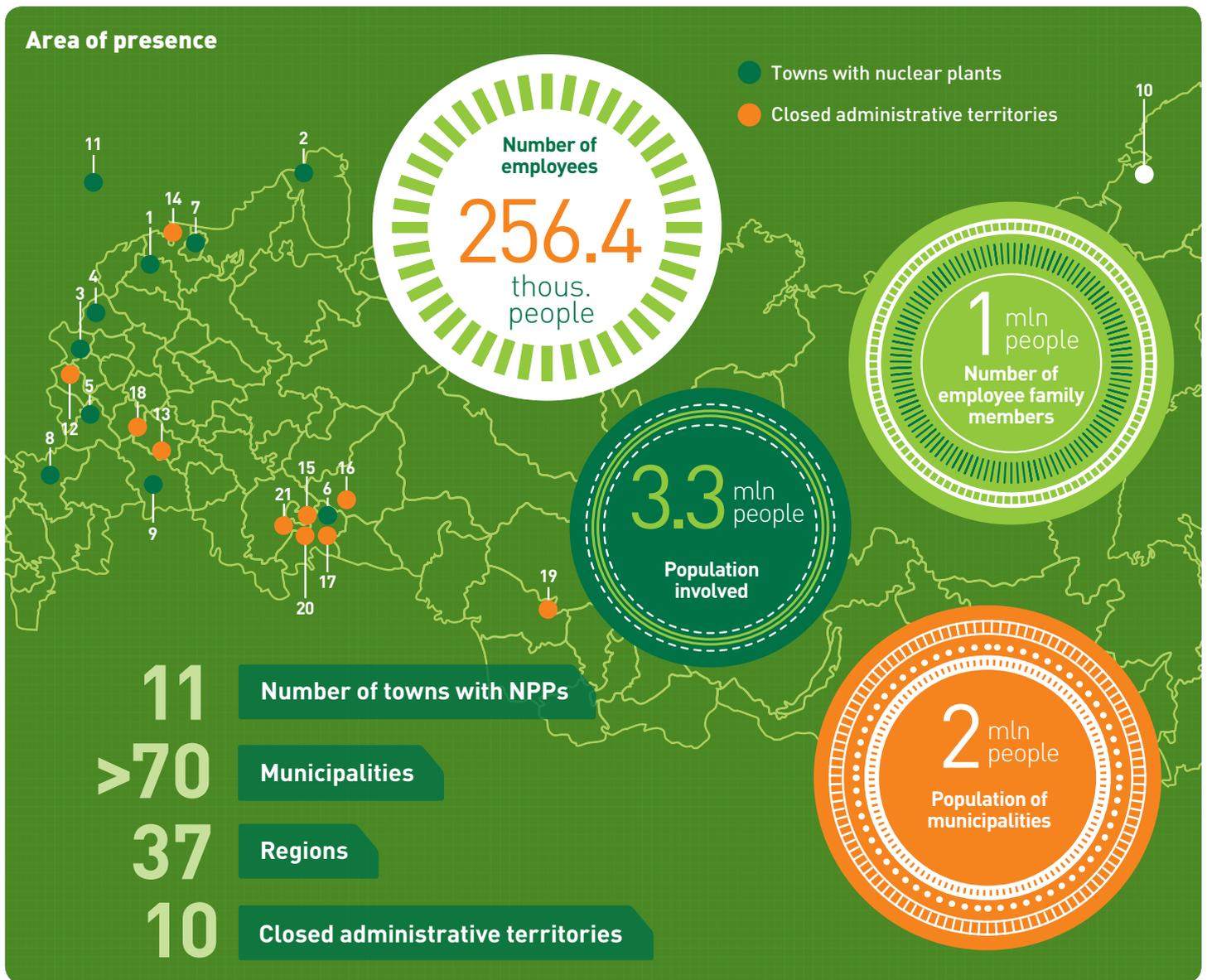
The most important achievements of 2012 included a set of cooperation agreements between ROSATOM State Corporation and Russian regions where cities with nuclear power generation industry are located.

Under these agreements the cities got new sizeable opportunities for raising target additional funds for social facilities and projects by exploiting the potential of tax payments made by the Corporation's enterprises to the budgets of the federal subjects of Russia, which have increased since 2013.

What are the priority areas of the interaction with regions for the coming years? Which key projects are being implemented (or are to be implemented)?

At present, the nuclear power generation industry is actively being reformed, and the civil sector (power generation, transport, new materials) is growing rapidly. Our task is to maintain social stability in operating regions considering the changes, to resume the continuous development of specialists and professionals. Undoubtedly, human resources are vital to the industry and have always been so. ROSATOM's social programs are aimed at ensuring a high quality of life for employees in our industry regardless of where an enterprise is located. Thus, we aim to tackle a wide range of issues: from ensuring an active cultural life in the cities where we operate, to finding optimal solutions in the sphere of the construction and renovation of utility systems, urban amenities and transport.





Towns with nuclear plants

Town	Population, thous. people	Subject of the Russian Federation	Branch of OJSC Concern Rosenergoatom	Headcount, thous. people		
				2012	2011	2010
1. Udomlya	31.0	Tver Region	Kalinin NPP	4.4	3.9	3.8
2. Polyarnye Zori	15.0	Murmansk Region	Kola NPP	2.7	2.6	2.6
3. Kurchatov	47.5	Kursk Region	Kursk NPP	4.9	4.5	5.2
4. Desnogorsk	30.0	Smolensk Region	Smolensk NPP	4.6	4.4	4.6
5. Novovoronezh	33.0	Voronezh Region	Novovoronezh NPP	3.3	3.1	3.1
6. Zarechny	27.0	Sverdlovsk Region	Beloyarsk NPP	2.9	2.4	2.2
7. Sosnovy Bor	67.0	Leningrad Region	Leningrad NPP	5.3	4.7	5.1
8. Volgodonsk	170.0	Rostov Region	Rostov NPP	2.6	2.2	1.9
9. Balakovo	221.0	Saratov Region	Balakovo NPP	3.8	3.8	3.9
10. Bilibino	6.3	Chukotka Autonomous	Bilibino NPP	0.8	0.7	0.8
11. Neman	15.3	Kaliningrad Region	Baltic NPP	0.018	0.0	0.0
Total				35.318	32.3	33.2

Closed administrative territories

Town	Population, thous. people	Subject of the Russian Federation	Enterprise	Headcount, thous. people		
				2012*	2011	2010
12. Zheleznogorsk	102.1	Krasnoyarsk Territory	SUE Mining Chemical Plant	6.0	7.4	7.7
13. Zarechny	62.0	Penza Region	SUE START	7.2	7.5	7.8
14. Zelenogorsk	68.6	Krasnoyarsk Territory	OJSC Electrochemical Plant	3.0	3.7	5.7
15. Lesnoy	55.1	Sverdlovsk Region	SUE Elektrokhimpribor	9.2	9.5	9.8
16. Novouralsk	95.6	Sverdlovsk Region	OJSC Urals Electrochemical Plant	3.7	5.2	8.6
17. Ozersk	98.4	Chelyabinsk Region	SUE Mayak Manufacturing Association	12.2	12.7	12.3
18. Sarov	88.3	Nizhny Novgorod Region	SUE Institute of Experimental Physics	18.4	18.7	18.8
19. Seversk	113.8	Tomsk Region	OJSC Siberia Chemical Plant	5.8	7.5	10.8
20. Snezhinsk	50.5	Chelyabinsk Region	SUE Institute of Technical Physics	9.4	9.7	9.1
21. Trekhgornyy	34.5	Chelyabinsk Region	SUE Instrumentation Plant	5.5	5.5	4.7
Total				80.4	87.4	95.3

* A decline in headcount in 2012 compared to the previous period was related mainly to restructuring the Company (transferring employees to subsidiaries and affiliates and outsourcing companies, retaining workplaces and providing retirees with retirement)

3.6.1. CLOSED ADMINISTRATIVE TERRITORIES OF THE NUCLEAR POWER GENERATION INDUSTRY

Building local innovative clusters and the engagement of regional resources

In 2012, programs for developing four innovative clusters of the nuclear power generation industry (the closed administrative territories of Zheleznogorsk and Sarov, Dimitrograd, the urban agglomeration of Saint Petersburg, Sosnovy Bor and Gatchina) designed under the supervision and in accordance with the tasks of local authorities, and with the considerable assistance of ROSATOM State Corporation, participated in a competition held by the Russian Ministry of Economic Development. The results of the competition led to all four clusters being included in the list of local innovative clusters approved by the Russian Government; starting from 2013, the Government will provide support for these clusters for five years: a cluster subsidy and funds for development institutes were provided, and FTPs were adjusted. In 2013, cluster development programs will be launched.

During the reporting year, events took place at which industry employees and representatives of towns where

ROSATOM operates discussed the development of innovative clusters; there were round-table discussions forming part of the international Open Innovations Forum, the "Instruments of the Cluster Policy" seminar, and the II Innovation Forum on personnel in the innovative cluster held in the closed administrative territory of Zheleznogorsk.

The creation of industrial parks continued. The concept of an industrial park in the closed administrative territory of Novouralsk was developed; the park is to specialize mainly in electrochemistry and small-scale generation.

In 2012, a design for an industrial park in the closed administrative territory of Zheleznogorsk was supported by the Russian Ministry of Economic Development, and it was decided to allocate funds from the federal budget to create it. At the end of 2012 the construction of the first stage of the park began.

In 2013, the creation of industrial parks in Novouralsk, Zheleznogorsk and other areas will continue, resident companies will be involved, and possible forms of supporting such projects will be considered.

 For details see the e-version of the Annual Report

Key achievements of the Association of Closed Administrative Territories in the nuclear industry in 2012:

- the preparation of proposals concerning the improvement of regulatory documents governing the operation of closed administrative territories;
- cooperation with ROSATOM State Corporation in forming social and economic development programs for closed administrative territories with the possibility of allocating additional resources for their implementation from the Federal Budget;
- the organization of participation of the Association's members in events (conferences, meetings, etc.) organized by ROSATOM State Corporation and other institutions concerning issues which affect the interests of closed administrative territories.

During the reporting year, the Association continued to cooperate with ROSATOM State Corporation (primarily with the Regional Liaison Office), including the preparation of ROSATOM State Corporation's report for 2011, with the management of the Russian Professional Atomic Workers Union (a joint meeting and a seminar were held in the closed administrative territory of Novouralsk), the Russian Union of Nuclear Energy, Industry and Science Employers and industry veterans' organizations, as well as the Federal Medical and Biological Agency of Russia.

3.6.2. IMPLEMENTATION OF SOCIAL PROGRAMS IN OPERATING REGIONS

Continuing traditions established in the nuclear power generation industry, ROSATOM State Corporation and its organizations follow responsible business principles. Given the importance of responsibility and considering the social and economic development of Russia, its regions, cities and towns, including closed administrative territories in the nuclear power generation industry, as a main priority, the State Corporation has been decisive in consistently implementing several social programs in the industry.

ROSATOM School

This project implemented since 2011 is a strategic initiative of the State Corporation for creating the conditions under which towns with a nuclear power generation industry will soon be successfully involved in the modernization of the Russian education system (preschool, compulsory and additional education). Tools of the project include stimulating the innovative activity of educational organizations, teachers and heads of educational institutions, supporting and disseminating best practice selected during annual competitions.

In 2012, the competition included 10 integrated programs. Competitions were held publicly using Internet technologies in real time. Aside from a panel of professionals, winners were also determined by residents of towns participating in the project voting for the best competitors on the project's website (www.rosatomschool.ru). Over 61 thous. residents of towns participating in the "ROSATOM School" project took part in voting.

In 2012, over 400 educational organizations and teachers participated in competitions forming part of the project. Participants included 64 preschool education institutions (which competed for the first time in 2012), 45 compulsory education institutions, about 300 teachers and heads of educational organizations. In 2012, support was provided for the 30 best educational institutions, teachers and heads of educational organizations. During the 2012–2013 academic year, based on their expertise, internships were provided for teachers and heads of educational organizations in all 22 towns participating in the project.

In 2012, over 3,000 schoolchildren took part in 22 high-quality online events for talented children. Each event was developed in towns participating in the "ROSATOM School" project and selected from over 100 applications for a specially organized competition.

ROSATOM's Territory of Culture

As part of the "ROSATOM's Territory of Culture" program, the Corporation plans to introduce the residents of areas of the nuclear power generation industry to the best works of fine, theatrical and performing art, and to support and develop unique and remarkable talents who work in towns with a nuclear power generation industry.

In 2012, 102 educational and cultural events took place in closed administrative territories and towns with NPPs, including 28 personal exhibitions and workshops of the best Russian and Western painters, sculptors and photographers of the 20th century. A new project "An Open-Air Museum" was launched. 23 Russian bands and theater troupes performed in closed towns.

As part of supporting local creative initiatives, the following events regularly take place: a theatrical competition of professional and amateur troupes of closed administrative territories, a festival of museums of closed administrative territories, a choreography and dancing sports festival and competition, and other creative events.

 For details see the e-version of the Annual Report

Interaction with youth organizations

International Association of Young Nuclear Power Engineers

A non-profit organization "International Association of Young Nuclear Power Engineers" (MAMA, www.desnay.ru) was established in 2004 to coordinate the activities of youth associations of the nuclear power generation industry enterprises of Russia and foreign countries (Russia, Ukraine, Lithuania). As of December 31, 2012, MAMA comprised six organizations, and its membership was about 600 people.

 For details see the e-version of the Annual Report

Youth Department of the Russian Nuclear Community

The Youth Department of the Russian Nuclear Community was established in 1995. It comprises students, postgraduate students and young specialists working in nuclear power generation industry enterprises and related spheres. As of December 31, 2012, the membership of the Youth Department of the Russian Nuclear Community was over 1,000 people.

 For details see the e-version of the Annual Report

Supporting veterans

The Interregional Non-Governmental Movement of Nuclear Power and Industry Veterans (www.veteranrosatom.ru) has existed since 2000 and comprises 125 organizations; the membership is 315 thous. people.

 For details see the e-version of the Annual Report

Charity

The charity concept and interaction with local communities

In accordance with the Concept of Charity Activities and Interaction with Local Communities adopted in 2010, the charity activities of ROSATOM State Corporation and its organizations are based on the following priorities:

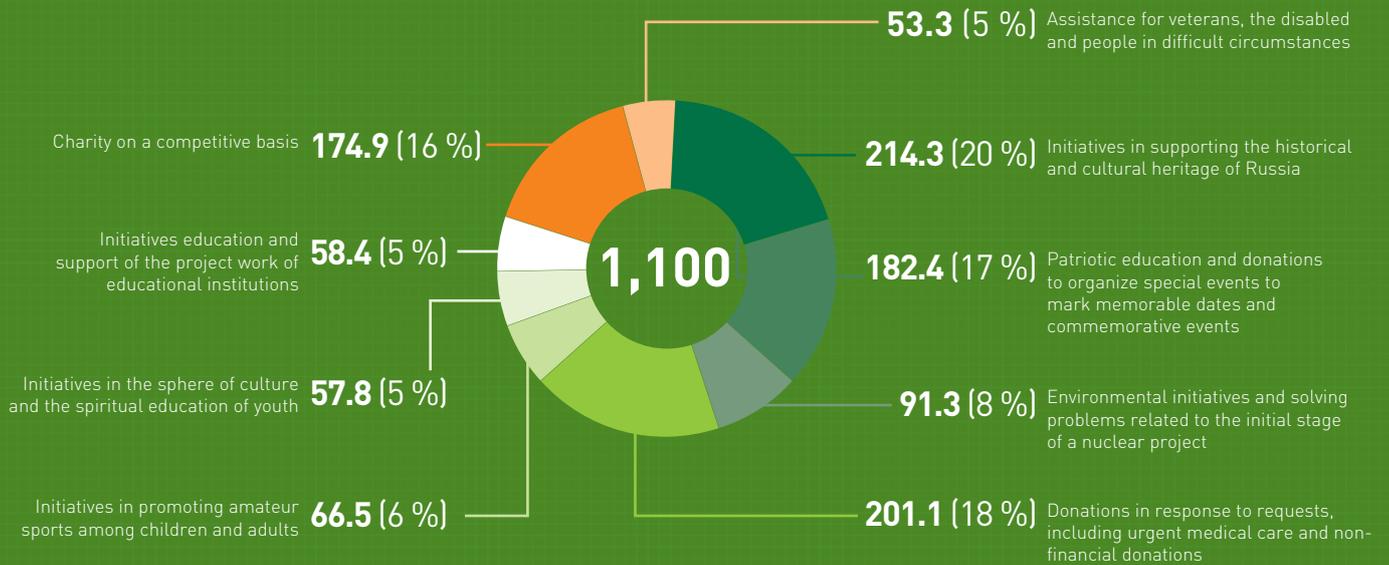
- implementing local initiatives aimed at improving the quality of life and protecting the environment;
- implementing initiatives aimed at protecting the life and health of people (including the disabled, the elderly, orphans, and other people in difficult circumstances);
- supporting educational initiatives, including contests, grants for education projects and programs, and advanced training for teachers;
- supporting high social and cultural standards in the operating regions of the Corporation's organizations, including:
 - supporting cultural and educational initiatives,
 - providing advanced training for specialists in the cultural and social sphere and medicine,
 - participating in patriotic education, promoting spiritual values, sport and a healthy way of life,
 - promoting the professional management of social and economic development in regions where nuclear facilities are located.

Achievements of 2012

In 2012, the Corporation's organizations implemented over 650 charity projects[•], both in the operating regions and beyond. In 2012, organizations of ROSATOM State Corporation allocated 1,100 mln RUB for charity[•].

The industry organizations held over 20 competitions of local charity initiatives. Overall, the funds allocated on a competitive basis totaled about 175 mln RUB over 32 towns of Russia.

Breakdown of expenditure on charity by ROSATOM's organizations in its operating regions in 2012, mln RUB, %



3.6.3. SOCIAL PROJECTS TO TACKLE THE ISSUES OF THE “NUCLEAR LEGACY”

Program for relocating the inhabitants of Oktyabrsky village

ROSATOM State Corporation fulfilled its obligations related to relocating the inhabitants of Oktyabrsky village (Trans-Baikal Territory). The program had been started in 2007.

In accordance with a tripartite agreement (the Federal Atomic Energy Agency, the administration of the Chita Region, the administration of the Krasnokamenskoye urban locality) on joint funding of urgent environmental measures, including target financing to ensure relocation of the inhabitants of Oktyabrsky village in the Krasnokamensky District of the Chita Region to environmentally safe districts, the Corporation provided 600 mln RUB during the implementation of the program. Out of this, 582 mln RUB was allocated for relocating the inhabitants and 18 mln RUB was used for land reclamation in the village and demolishing houses in Oktyabrsky. By virtue of these funds, 509 families were relocated.

Program for relocating the inhabitants of the town of Muslyumovo

In 2012, a program for relocating the inhabitants of the town of Muslyumovo in the Chelyabinsk Region was completed. The program had been started by ROSATOM State Corporation and the

government of the Chelyabinsk Region in 2006. Overall, thanks to the program and funds allocated by the Corporation, 330 hectares of land in the floodplain of the Techa River was reclaimed, and 604 families were relocated. Overall, in 2006–2012, the Corporation allocated 580.5 mln RUB for the program.



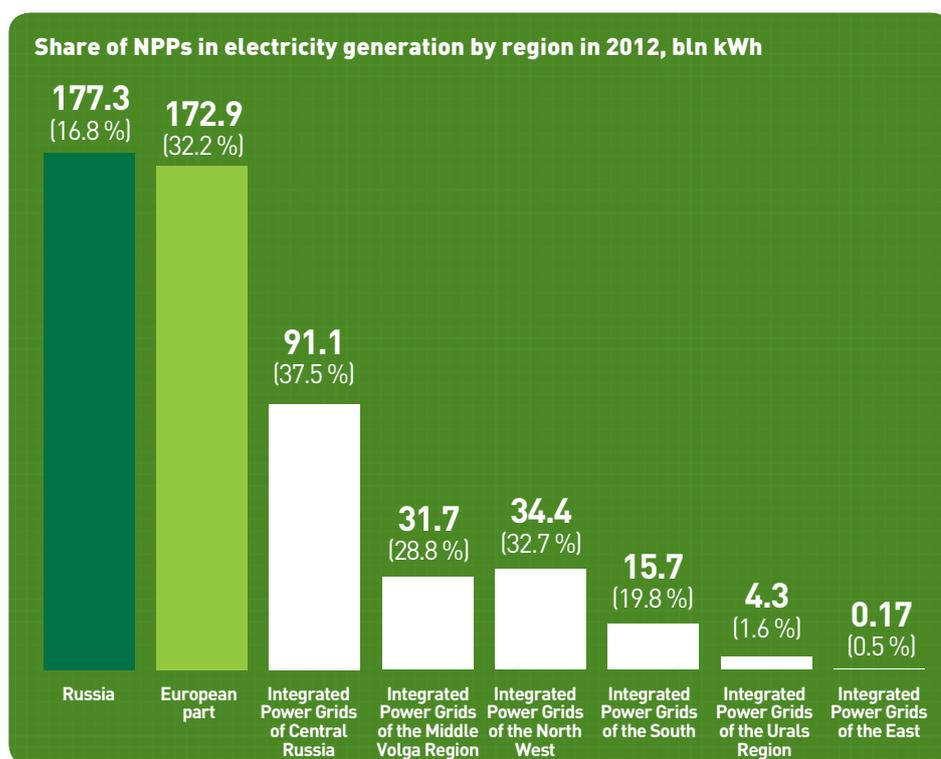
3.6.4. CONTRIBUTION TO THE SOCIAL AND ECONOMIC DEVELOPMENT OF OPERATING REGIONS

CONTRIBUTION TO THE ENERGY SECURITY OF RUSSIAN REGIONS

The share of electricity generated by NPPs amounts to 16.8% of the total electricity produced in Russia.

Nuclear power generation greatly contributes to the integrated power grids of

Russia (in the European part of Russia, the share of NPPs is 32.2%). Aware of the importance of its contribution to the country's energy mix, ROSATOM State Corporation is optimizing the indirect economic impact: it takes measures against an increase in electricity prices generated by NPPs, which provides control over the overall growth of electricity prices and, as a result, reduces the risk of increased inflation.



CONTRIBUTION TO THE ECONOMIC DEVELOPMENT OF RUSSIA

ROSATOM State Corporation has an overall economic impact on the development of its operating regions. The Corporation contributes significantly to ensuring energy security in a number of regions and is actively involved in the creation and fair distribution of economic value. ROSATOM State Corporation is a large taxpayer in its operating regions and pays taxes to budgets of all levels. The Corporation's business has a significant economic impact, as it creates a considerable number of jobs for professionals in nuclear power generation and related industries, ensuring not only employment, but also competitive working conditions and salaries.

In most cases, the organizations of the Corporation are among the largest employers in ROSATOM's operating regions, often with the highest salaries. At the same time, strict requirements for employees' qualifications stimulate the local labor market to increase the level of employee training, including the standard of education. Furthermore, NPPs in regions may promote the development of energy intensive businesses, which will also have a positive impact on employment.

The Corporation also has a considerable influence on the development of related industries, as it is the largest buyer of products and services of Russian, and mainly local, suppliers.

Thus, overall, the presence of nuclear power generation facilities in the region has a significant multiplier effect on the economy of operating regions.

CONTRIBUTION TO THE CREATION AND DISTRIBUTION OF ECONOMIC VALUE

Overall, the economic efficiency of ROSATOM State Corporation in the reporting year is represented in the table of creation and distribution of economic value among stakeholders. The created value is distributed among suppliers and contractors (as part of operating expenses), suppliers of capital (in the form of interest paid to creditors), personnel of the Corporation and its organizations (salaries and social expenditures), the State (in the form of taxes), local communities and regional and municipal authorities (in the form of social investments, charity and taxes). Part of the created value remains within the Corporation (retained earnings which include funds allocated for developing the business).



Launch of the 4th unit of the Kalinin NPP

In 2012, the Internal Performance Factor (a ratio of added value to revenue expressed in per cent) of ROSATOM State Corporation totaled 0.550 (0.595 in 2011)

Creation and distribution of value*, mln RUB

Indicator	2012	2011	2010
Created economic value	486,416	481,748	552,300
income (sales revenue and income from financial investments and sale of assets)	486,416	481,748	552,300
Distributed economic value	374,061	330,073	378,900
operating expenses (payments to suppliers and contractors, cost of materials)	(199,722)	(177,732)	(210,500)
salaries and other payments and allowances for employees	(124,394)	(107,830)	(102,600)
payments to suppliers of capital	(570)	(1,446)	(10,000)
gross tax payments (excluding personal income tax and VAT)	(42,296)	(37,072)	(54,000)
investments in communities, including donations	(7,079)	(5,993)	(1,800)
Retained economic value	112,355	151,675	173,400

* data for 2011 were revised due to including subsidiaries (OJSC Graphite Construction Materials Institute, OJSC Krasnaya Zvezda, OJSC Molniya Machine-Building Plant) as part of the transaction related to acquisition of business under joint control made in September 2012. The previous Report contains details and comments on the results for 2011.

CREATING NEW JOBS AND ENGAGING CONTRACTORS

The construction and commissioning of facilities using nuclear power, including power units of NPPs, creates new jobs: a number of employees are local residents living within a radius of 100 kilometers

away from facilities under construction. In addition, in fact, each employee who is involved in the construction of an NPP contributes to providing work for 10 to 12 specialists in related spheres of

the economy (the metallurgy industry, machine building, etc.) Thus, the Corporation significantly contributes to maximizing employment, including for local residents in its operating regions.

Number of organizations and employees involved in the construction of NPPs in 2012

NPP	Number of the main organizations involved	Employees concerned, total	Including:	
			Engineers	Workers
Baltic NPP, Power Units No. 1, 2	19	1,456	238	1,218
Beloyarsk NPP, Power Unit No. 4	58	4,161	562	3,599
Novovoronezh NPP-2, Power Units No. 1, 2	24	5,130	1,084	4,046
Leningrad NPP-2, Power Units No. 1, 2	6	2,541	150	2,391
Leningrad NPP-2, temporary buildings and constructions	1	15	3	12
Rostov NPP, Power Units No. 3, 4	50	5,342	1,035	4,307
Total	158	18,645	3,072	15,573

PURCHASING FROM RUSSIAN AND LOCAL PRODUCERS

ROSATOM State Corporation is one of the largest consumers of goods and services produced by Russian enterprises. At the federal level, the Corporation orders equipment made by Russian power machine building enterprises. At the regional level, it purchases goods and services from local suppliers, thus supporting the economic activity of other enterprises in its operating regions.

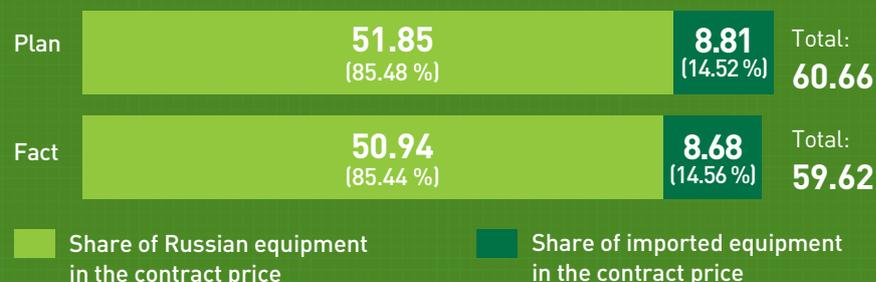
When assessing the offers of bid participants, the purchasing system of ROSATOM State Corporation supports the opportunity of establishing additional accounts for supporting Russian producers, for suppliers and producers located in the vicinity of the client, in order to minimize the cost of delivery and relocation of equipment and resources. Since 2011, a simplified procedure for receiving orders has been used for industry suppliers and producers whose products are of strategic importance to the development of the industry. The list of such goods, producers and suppliers is available on the website of ROSATOM State Corporation. The proportion of purchases made from local suppliers in significant operating regions exceeds 50 % of total procurements[•]. Overall, in the industry, the share of purchases made from Russian producers and suppliers exceeds 80 %.

In 2012, compared to 2011, approximately 6 thous. new contractors signed agreements in accordance with the Uniform Industry Procurement Standard (UIPS) and the Federal Law No. 94-FZ dated July 21, 2005 "On Placement of Orders to Supply Goods, Carry out Works and Render Services for Meeting State and Municipal Needs" with industry organizations, out of which 82.5 % are small and medium-sized businesses, including sole proprietors.

In 2012, NPP equipment worth 59.62 bln RUB was purchased; out of this, purchases made from Russian suppliers totaled 50.94 bln RUB. In 2012, 16.22 bln RUB was spent on long manufacturing cycle equipment.

Local (Russian) suppliers are legal entities and individuals located in the vicinity of the client (in order to minimize the cost of delivery and relocation of equipment and resources) and providing the client with the material resources necessary for producing certain goods and services.

Breakdown of NPP equipment purchases in 2012, bln RUB



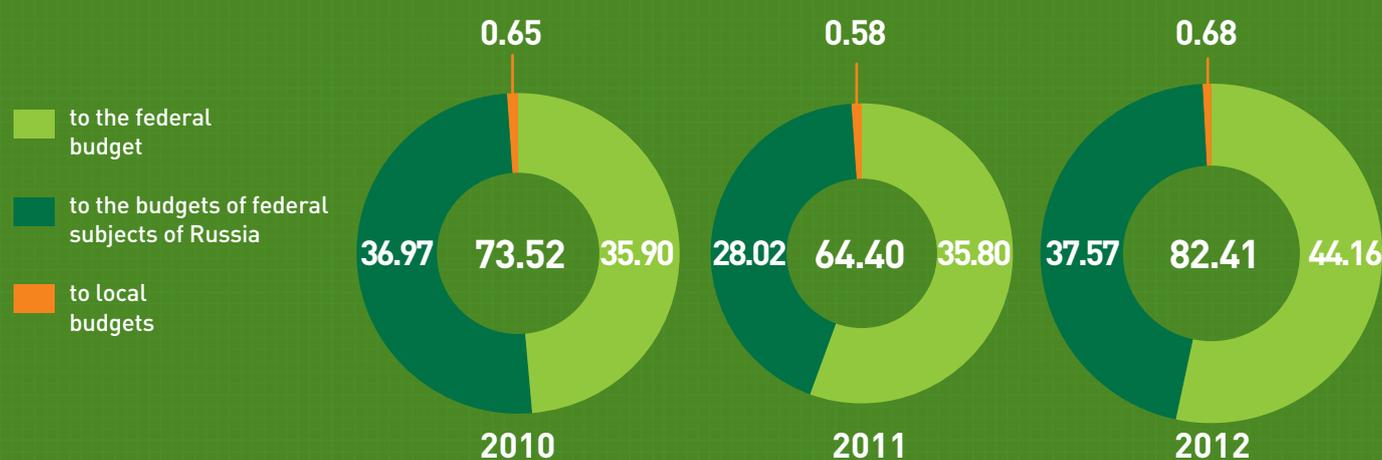
TAX PAYMENTS TO BUDGETS OF VARIOUS LEVELS

Organizations and enterprises of ROSATOM State Corporation have a considerable impact on the revenue

side of budgets in operating regions. In 2012, 82.40 bln RUB was paid to budgets of all levels (including pay-

ments to extra-budgetary funds), which is 128 % more than in 2011 and 112 % more than in 2010.

Taxes paid by ROSATOM State Corporation and its organizations, bln RUB



3.7. Social and Goodwill Capital Management

Social and goodwill capital management involves efforts to establish constructive relationships with stakeholders and build up public acceptance of nuclear technologies and brand management.



Sergey Novikov, Director of the Communications Department

What are the main risks related to the reputation and image of the State Corporation? What tools are used to minimize them?

The main reputational risk is related to incidents at nuclear power facilities, regardless of their location. Two years ago, the events in Japan resulted in a wide and rapid spread of negative stereotypes about NPPs. In 2011, we had to conduct a large-scale awareness campaign to explain what was happening; in 2012, we conducted another campaign aimed at promoting the peaceful use of nuclear power in order to demonstrate the wide variety of applications of nuclear technologies, which are used even in everyday life. Most people still view a nuclear power plant as little short of exotic. However, radioactivity itself is inherent in our environment, and radiation technologies form part of our everyday life. We even made a film, "Radiation technologies in a supermarket", in cooperation with Rossiya 24 TV channel.

Information tools cannot completely eliminate incidents related to NPP

operation, but they are extremely important in terms of interpreting them. Consider the collapse of a textile factory in Bangladesh: over 1,500 people were killed in the accident, but does anyone demand that the textile industry be closed? On the other hand, in the Fukushima-1 accident, nobody died of radiation poisoning, but nevertheless it caused an uproar worldwide. Why? Because there were mistakes related to communications: attempts to understate the concentration of radionuclides, the scale of the incident, etc. All this resulted in a lack of confidence in official information released by the government. It is important to immediately provide people with accurate and transparent data and indicate their sources. In our country, anyone who is interested can obtain information on the level of background radiation in real time using their computer or smartphone.

Another important point is that awareness campaigns help people become immune to speculations. When one understands that the normal level of background radiation in a plane totals 300 microroentgens per hour, they won't be scared by "breaking news" that in this or that part of Moscow a piece of land was found to emit 90 micro-roentgens per hour, "which is six times higher than the permissible level." In order to raise awareness, we continue to develop a network of information centers in large cities of Russia; we also opened the first center in Hanoi.

Did the Corporation use new tools for stakeholder engagement in 2012?

In the reporting year, we started using social networking services more actively. For instance, we successfully integrated our content in several of the most popular games. Users answered our quiz questions more than 5 million times, and the number of correct answers rose from 45 % to 80 %.

ROSATOM plans to become even more active in global markets. How is ROSATOM's brand promoted abroad?

Based on their marketing goals, we develop a communication program for specific region with specific performance indicators. Besides, we tried conducting a global publicity campaign for the first time, which involved two periods of broadcasting videos on the BBC World News channel. As a result, brand recognition among our target audience increased by a factor of 3.5.

What projects aimed at making the nuclear power industry more socially acceptable is the Corporation going to implement in the coming years?

Currently, we are working simultaneously in several areas: in Russia as a whole we position our company under the slogan "ROSATOM as a corporation of knowledge". It is important for us to state that our enterprises are points of innovative growth, and that it is in our industry that new developments occur that are subsequently used by the entire country.

We also have a separate project aimed at promoting the brand of ROSATOM as an employer. Our efforts in this area are focused on a consortium of universities, which provide 85% of our new employees, as well as on professional HR publications.

The foreign market is a different matter. As I have already said, we follow a specific plan in each region, depending on our goals and the changing context.

3.7.1. STAKEHOLDER ENGAGEMENT

Due to the scale and specifics of its activities (pursuing government and business objectives simultaneously), ROSATOM State Corporation interacts with a wide range of stakeholders both inside and outside Russia. Work with stakeholders is guided primarily by strategic objectives and the goal of ensuring public acceptance of nuclear power.

The principles underlying this interaction include: respect and consideration of all parties' interests, open fruitful cooperation, timely and full reports to stakeholders on the Corporation's activities, efforts to ensure specific benefits for all parties, and fulfillment of commitments.

ROSATOM's core business has many strands (uranium production, NPP construction, electric power generation, fuel fabrication, decommissioning of nuclear facilities, RAW and UNF handling, power machine building, etc.), and a wide range of support activities (international legal cooperation, law-making, etc.), and each of these business strands and activities has stakeholders of its own,

with whom it builds systematic and strategic relationships (as described in the relevant sections of the Report).

Part of ROSATOM's work is to provide for the engagement of all stakeholders and a broad public outreach.

The ROSATOM Public Council was set up in 2006 to involve RF citizens, public organizations, professional associations, the scientific community and local self-governments in a process of consultation in support of the Corporation decision-making efforts addressing nuclear power use and nuclear power industry development.

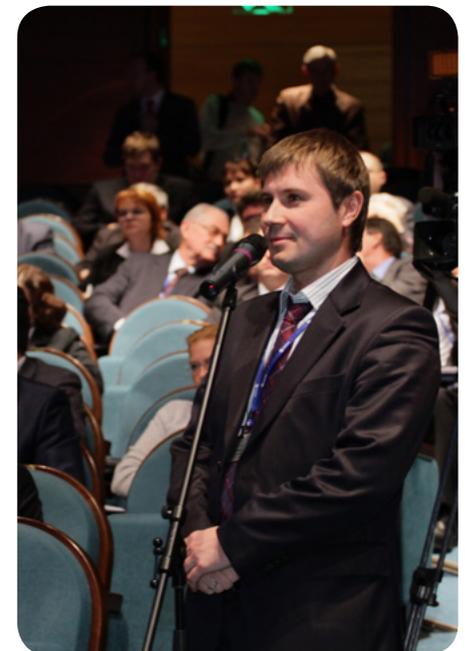
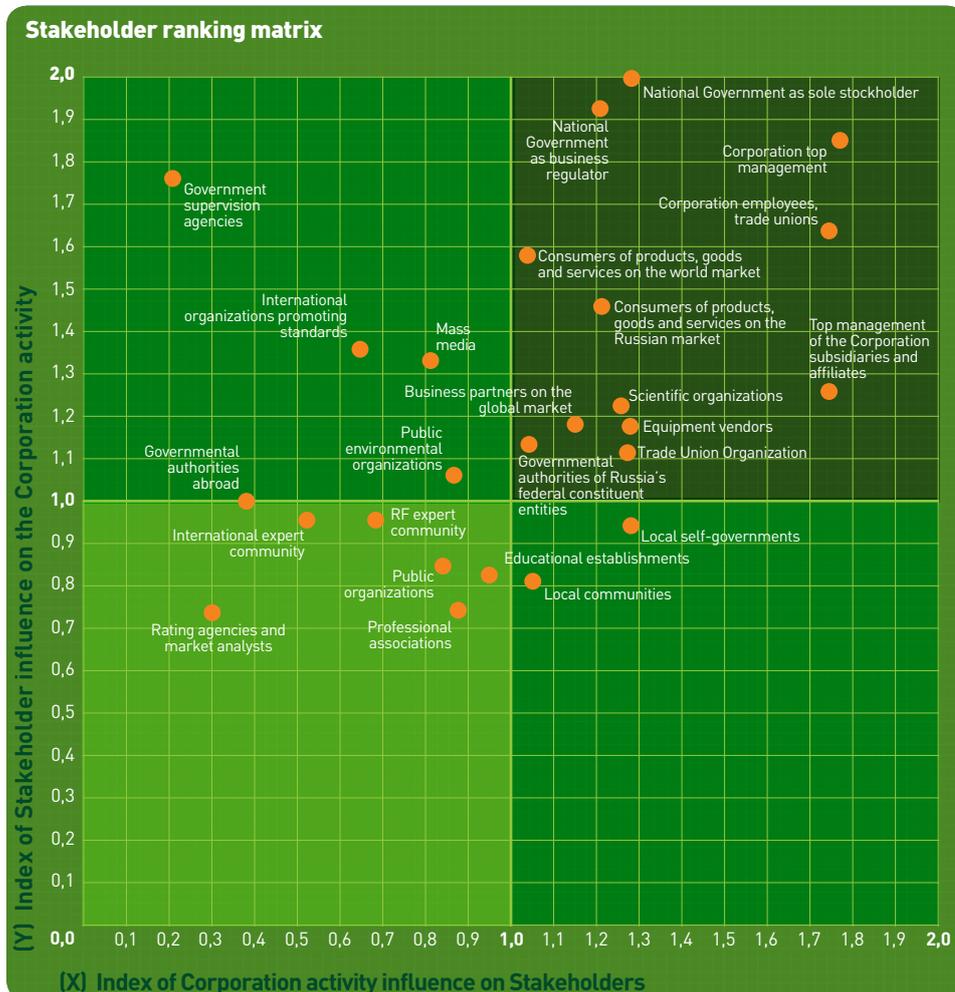
2012 events:

- the VIth International Forum-Dialogue "Atomic Energy, Society, Safety-2012",
- the Vth Regional Public Forum-Dialogue "Nuclear Facilities, Society, Safety-2011",
- practical science conferences for education and public health workers in the ROSATOM host regions,

- a symposium "Ensuring the environmental safety of nuclear and space industries",
- a contest of schoolchildren's scientific projects and research, "Energy for Future Generations",
- an open contest of socially significant projects of public organizations in the Corporation host regions (among the contest winners: Festival of the museums of the closed administrative territories "Museum of Town-Z", the 10th International children's ecological forum "The Green Planet 2012", a contest for young writers from closed administrative territories).

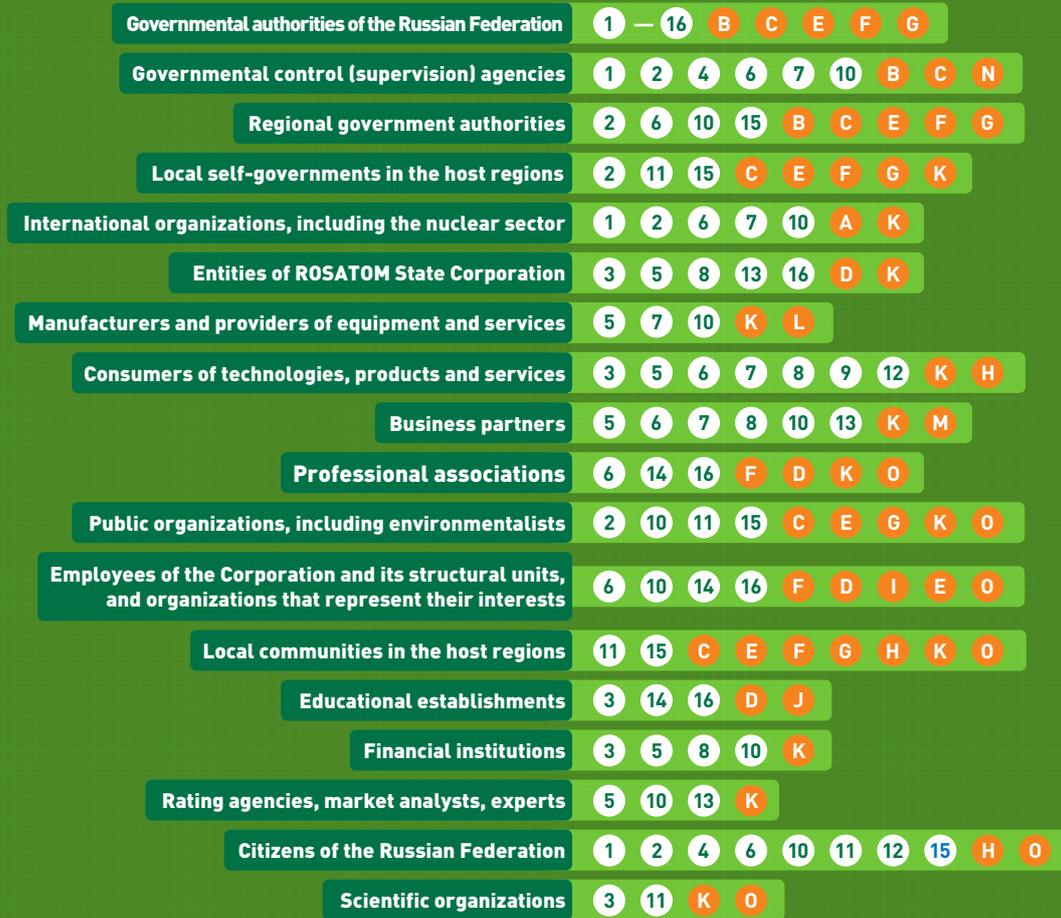
For details see the e-version of the Annual Report

	2012	2011	2010
Number of regions	22	18	16
Number of applications filed	130	127	85
Number of winners	49	82	56
Amount of funding, mln RUB	29	46	46



The stakeholder ranking matrix was compiled from a poll of the Corporation's top executives and Public Reporting Committee members. Each respondent evaluated the Corporation's influence on various stakeholder groups, and the influence of various stakeholder groups on the Corporation activity using a scale of three. Averaged point scores were used to arrive at the influence indices.

Stakeholder Engagement



P Q

Stakeholders' Interests

- 1 Ensuring non-proliferation of nuclear materials and technologies
- 2 Assurance of nuclear, radiation and environmental safety
- 3 Technological upgrade in the nuclear sector
- 4 Efficient spending of government budget
- 5 Business efficiency of ROSATOM State Corporation structural units
- 6 Compliance with international and Russian laws
- 7 Fair competition and responsible behavior on markets
- 8 Competitive ability on global markets
- 9 Higher quality of products and services
- 10 Transparent operations of ROSATOM State Corporation, including transparency of purchasing processes
- 11 Addressing issues of legacy from business and defense activities in the past

- 12 Secure supply of electric power
- 13 Adoption of international standards and regulations in management
- 14 Adequate remuneration of personnel, guaranteed career growth for employees, safe employment conditions
- 15 Higher living standards in the host regions
- 16 Development of human resource potential for ROSATOM State Corporation and its structural units

Types of Stakeholder Engagement

- A Cooperation with international leading organizations, participation in international programs and projects
- B Participation in legislative activities
- C Public hearings and public environmental expert reviews as regards NNP unit construction projects
- D Personnel training and advanced training programs
- E Social and welfare programs and projects
- F Assistance in the development of host regions
- G Charity
- H Public polls
- I Hotline services
- J Programs of cooperation with relevant higher educational establishments
- K Dialogs: forums, conferences, workshops, exhibitions, fairs
- L Open and competitive procurement process
- M Program of cooperation with other companies
- N Cooperation program with state control (supervision) authorities, law enforcement
- O Public management and supervisory bodies
- P Information and communication
- Q Public reporting of the Corporation and its structural units

3.7.2. COMMUNICATION AND AWARENESS

In 2012, the stakeholder engagement and public outreach work pursued the following objectives:

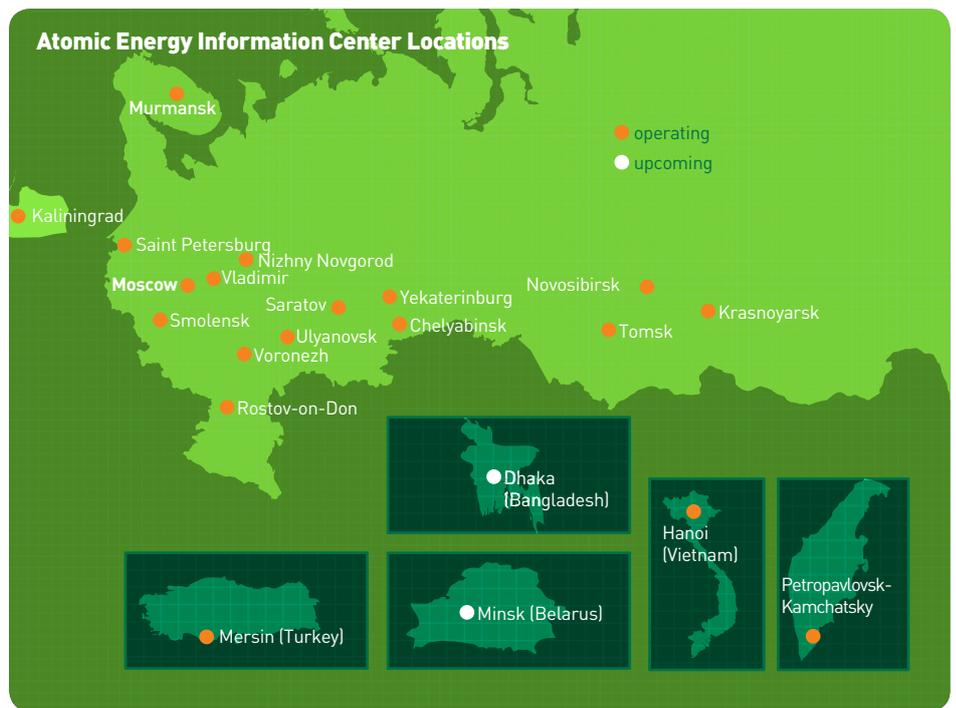
- to provide insight into the strategy of the Corporation as a global leader in technology and as a knowledge corporation that offers breakthrough technologies and solutions for the nuclear industry, as well as medicine, radiation technologies, materials science, space industry, energy conservation, defense, anti-terrorism effort and transport;
- to keep the general public informed of progress in overcoming the post-Fukushima syndrome and nuclear energy development in Russia and further afield.

Direct Communication

Atomic Energy Information Centers

ROSATOM State Corporation started to increase its network of Atomic Energy Information Centers Information Centers in Corporation host regions in 2008 (www.myatom.ru). The main function of the Centers is to provide basic knowledge about nuclear energy, raise public awareness, popularize science, innovative technologies and technical education among students.

The first Information Center was opened in Tomsk. Currently the network in Russia consists of 17 Information Centers. In December 2012 the first overseas centers were opened in Hanoi (Vietnam) and Mersin (Turkey). In 2013, Information Centers will be opened in Minsk (Belarus) and Dhaka (Bangladesh).



Over the last five years, the centers have been visited by more than 750,000 people, including 360 thous. visitors in 2012. Visitors can watch video programs on 3D screens devoted to nuclear energy, astronomy, country studies, and take part in creativity, educational and outreach projects. "Expanding the Boundaries", a pilot international project, was implemented in 2012. The project, which promotes public diplomacy, made it possible for 25 schoolchildren and teachers from Novouralsk (Sverdlovsk Region) to visit and learn first-hand about nuclear power facilities, the school system and leading higher educational establishments in Hungary and Czech Republic.

Traditional projects in the information centers were no less successful. The 2nd International Youth Innovative Forum "Forsage-2012" was attended by over 400 participants. The Russia-wide patriotic event "The Science of Winning" dedicated to Victory Day, collected hundreds of students, veterans of the Great patriotic War and veterans of the nuclear industry in 15 cities of Russia, and the number of participants in the all-Russia contest of schoolchildren's research "Nuclear Science and Technology" was almost twice as high as in 2011 (up to 3,695 contestants). In the reporting year, the Information Centers were once again one of the partners of the All-Russia Science Festival.

For details see the e-version of the Annual Report

In 2012, the Atomic Energy Information Centers welcomed over 360,000 visitors. Public polls demonstrate that more than 55% of visitors to NEIC changed their view of nuclear power after their tour of the centers, and 47% of visitors became convinced of NPP safety.



Exhibitions and Forums

It has become a tradition that ROSATOM State Corporation carries out extensive information and exhibition activities both in Russia and abroad. In 2012, the major exhibition events were:

- Power & Electricity World Africa (Johannesburg, RSA),
- The Nuclear Industry in China (Beijing, China),
- Power-Gen India & Central Asia (Delhi, India),

- ATOMEX North-West (Saint-Petersburg, Lenexpo exhibition complex),
- ICCI 2012 (Istanbul, Turkey),
- The International Congress on Advances in Nuclear Power Plants (ICAPP'12) (Chicago, USA),
- ATOMEXPO-2012 (Moscow, Gostiny Dvor),
- The 54th International Exhibition of Machine Building (Brno, Czech Republic),
- The 37th Annual Symposium World Nuclear Association (London, GB),
- The 56th IAEA general Conference (Vienna, Austria),

- The Fuel & Energy Complex of Ukraine: Present&Future — 2012 (Kiev, Ukraine),
- ATOMEX-Europe (Prague, Czech Republic),
- AtomEco-2012 (Moscow, Radisson Slavyanskaya Business Center),
- Power Gen Africa-2012 (Johannesburg, RSA),
- The European Nuclear Conference (Manchester, GB),
- ATOMEX-2012 (Moscow, Expocenter Exhibition Center),
- NewGen 2012 (Moscow, Expocenter).



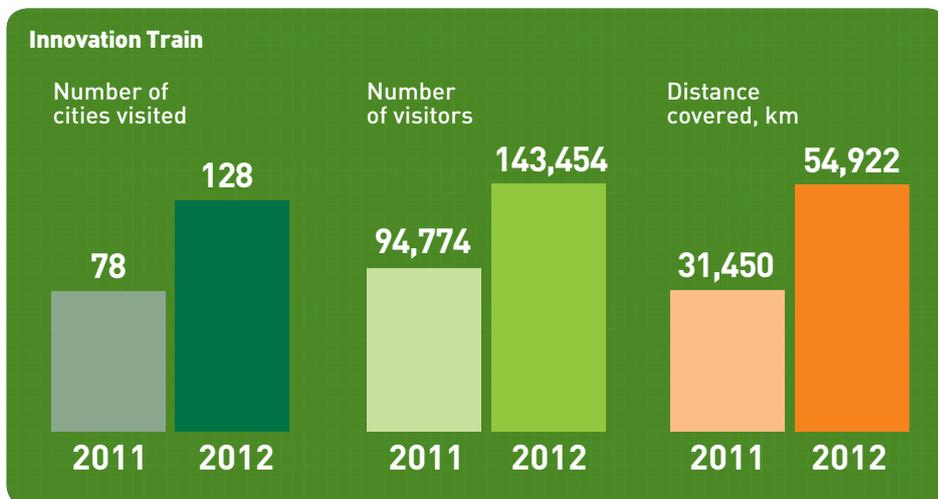
In the reporting year, the ATOMEX North-West forum welcomed over 340 delegates from 193 Russian and foreign companies (1.5 times more than in 2011). The number of participants of ATOMEX-2012 more than doubled (over 450 delegates from 216 Russian and foreign companies).

The IVth International Forum ATOMEXPO-2012 has become the major event of the year with more than 4 thous.delegates from 53 countries. The forum was attended by 328 reporters, including 84 foreign reporters. At roundtable meetings and workshops, 225 speakers delivered their reports addressing the topical issues relating to nuclear energy. The forum demonstrated that more and more countries are going down the road of nuclear energy development (twice as many delegates as in 2011). Representatives of these countries and their colleagues from Russia, France, Germany, USA and Japan met at the forum to discuss further international cooperation on the global energy market.

Innovation Train

Innovation Train is a mobile exhibition complex that last year started its journey to bring the message of scientific developments and technical innovations to various regions of Russia and foreign states. ROSATOM State Corporation, OJSC Russian Railways, OJSC Rosnano and Philips have displays in the train carriages.

The Corporation display contains information on the origin of radiation, natural sources and the degree of impact on humans; innovative achievements assuring the safety of Russian nuclear reactors; possible uses of radiation technologies in various sectors of industry, agriculture, health care and the space industry.



Internet Communication

Ring of Sites

The "Ring of Sites" project, launched by ROSATOM in 2009 to bolster information on Corporation activities via the Internet and to develop internal communications, was completed in 2012. Sophisticated and information-rich websites are now available on the industry and they serve to improve information flow to Internet users in terms of quality and promptness. Websites and intranet portals are based on a shared industry-level IT platform (IBM Websphere) using a shared corporate graphic style.

Virtual Tours

Virtual Tours project implementation continued in 2012, making it possible to visit various nuclear industry facilities (www.energy-travel.ru).) via a PC monitor. Four tours are available to Internet users: a nuclear power plant, a uranium mine, a uranium enrichment plant and nuclear-powered icebreakers.

Blogosphere

In 2012, ROSATOM State Corporation worked consistently with bloggers to make them more knowledgeable about nuclear power issues. During the reporting year, information posted in blogs and social networks was monitored on a daily basis. A total of 21,000 comments were analyzed, and the following average distribution of opinions was obtained: positive — 24%, negative — 22%, neutral — 54%. Two tours to nuclear power plants were organized for blog writers in the reporting year. Work was also carried out to promote "peaceful nuclear topics" in the blogosphere. The number of subscribers who joined the ROSATOM official microblog at twitter.com/rosatom, as well as the Corporation official community at www.facebook.com/rosatom.ru, has been progressively growing (1,856 persons and 2,798 persons, respectively, as at December 31, 2012). The Corporation official community page was opened in the VKontakte social network. Channels for broadcasting industry video and photo content are available in Yandex and YouTube.

Games and Mobile Applications

"NPP Safety", a game on the QS platform, was released in 2012. This application program for iPad that can be downloaded for free visualizes NPP internals and the reaction of its safety systems to such events as an airplane or celestial object crashing into a NPP or a flood, etc. The game will

be further upgraded to improve the level of detail of the NPP image. The game authors worked in cooperation with the engineers of Russian NPPs and experts modeling emergency situations.

In 2012, ROSATOM also issued mobile apps for iPhone and Android. Users can now receive the most current information on the radiation rating and nuclear industry news.

The Megapolis game, a youth-oriented online game posted in the VKontakte social network in 2011, maintained its popularity in 2012. The game encourages players to build a new generation NPP in a virtual city. To renew the NPP operating license players have to pass a quiz where they score a bonus for correct answers.

Traditional Means of Public Outreach

In the reporting year ROSATOM State Corporation continued activities to keep the target public informed about the state of affairs and future evolution of the Russian nuclear industry. The Corporation maintains its efforts to raise public awareness, including in the Corporation host regions, about nuclear technologies, innovative developments, radiation safety, etc.

The above mentioned objectives are achieved by implementing mass-media communication and information projects:

- the broadcast of a series of documentaries named "Encyclopedia of the Atom" on federal and regional TV channels (Russia-24, Science 2.0, Russia- 2, etc.);
- the broadcast of the "Atomic Horizons" program twice monthly on the TV channel Russia-24, presenting non-standard uses of nuclear technologies and innovations;
- cooperation with federal TV channels through participation in various TV programs: Wheel of Fortune, "Zhit Zdorovo" (Healthy Life), New Year with NTV, Jeopardy, Galileo, What? Where? When? quiz show (the Corporation placed an advertisement that was broadcast during the show airtime, and sponsored the "Super Blitz" quiz, the winner of which was awarded a tour to the Arctic Pole on board a nuclear powered icebreaker 50 Let Pobedy);
- purposeful work with news agencies and mass media: site visits to NPPs by journalists, press-conferences and interviews on significant events, etc. (over 1,000 articles, interviews, reports, news items were published in 2012 in print and the Internet, and about 40 news items and stories were broadcast by federal TV channels).

ROSATOM State Corporation lent its support to the feature film Atomny Ivan that was completed in 2012. For the first time in history a film was shot at operating Kalinin and Leningrad NPPs. The film won several prizes in 2012: a prize for the "Best Camerawork" at the Xth Festival of Cinematographic Deputies "Spirit of Fire", and a prize "For Your Smile!" at the Open Russian Comedy Film Festival "Smile, Russia!".

Corporate Media Pool

Industry Press

ROSATOM Nation, the industry newspaper, continued to be published in 2012 (circulation 53,000). It is printed in Moscow, Yekaterinburg, Krasnoyarsk, Chita, Nizhny Novgorod, and Novosibirsk.

The industry also has another 27 publications, the largest of which are the newspapers Novoye Vremya (Seversk, OJSC Siberian Chemicals Association, circulation 15,700) and Impuls (Zelenogorsk, OJSC Electrochemical Plant Association, circulation 10,000). Both of these have the status of civic newspapers.

Industry TV

In 2012, 20 townships (closed administrative territories and nuclear plant towns) watched the "Rosatom Nation" TV program each week.

A 3-minute video digest was also aired each week in Russian and English, available on all intra-corporate portals at ROSATOM companies. Plasma TV screens have been installed at 31 companies to show video digests and other corporate information.

Industry Radio

Efforts to set up a radio station for the nuclear industry began in 2011, and in the reporting year the radio network coverage was extended to over 50 organizations and companies of the Corporation. Programs of 30 minutes are aired three times a week.

Nuclear Kids International Children's Creativity Project

Participants of the international children's project Nuclear Kids are gifted children from various countries whose parents are employees of nuclear facilities. Under the leadership of recognized experts young actors participate in staging musicals.

The "Dream Station" musical, in which child actors perform for a child audience, was staged in 2012 ["Shelter of Freedom" — in 2011, and "Go and See" — in 2010].

In 2012, the project boasted the broadest geography of participants in the project history, 7 countries in all, and a record-breaking duration

of staging work — 18 days, and the longest road tour: NucKids covered about eight thousand kilometers with their show and performed in Volgodonsk, Kurchatov, Moscow, Budapesht and in Zanka international children and youth center (Hungary).

For details see the e-version of the Annual Report

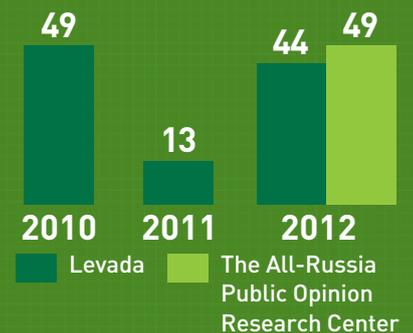
3.7.3. SOCIAL STUDIES

As a result of the work to improve NPP safety necessitated by the events in Japan, as well as public outreach efforts, ROSATOM State Corporation has managed to repeg the Russian public's support for the nuclear power industry to the "pre-Fukushima" level, as evidenced by independent public polls. Public opinion studies conducted by the Levada-Center and the All-Russia Public Opinion Research Center demonstrate

that the proportion of respondents who spoke in favor of the peaceful use of nuclear energy increased from 53.1 % to 71,5 %. At the same time the proportion of those against decreased from 40% in 2011 to 22 % in 2012.

Data on the level of confidence in the nuclear industry also confirm that the Fukushima syndrome has been overcome in Russia.

Level of Confidence in the Nuclear Power Industry



Public Attitude Towards Nuclear Energy Development in Russia (Levada-Center Studies)

Level of support for the development of nuclear power



Do you think that nuclear power generation should be increased, maintained at the current level, curtailed or completely abandoned?

- increase
- maintain at the current level
- curtail
- completely abandon
- don't know

3.8. Environmental Impact Management

Environmental impact management includes efforts to foster environmental friendliness, minimize environmental impacts and nurture biological diversity and the sustainability of the Earth's ecosystems.



**Vladimir Grachev,
Adviser to the Director
General**

2013 has been declared a year of environmental protection in Russia. How will this influence the Corporation's operations?

For 2013, we have scheduled numerous scientific and educational events, production and engineering measures of various types, including on the regional level. These include: updating the Environmental Policy of ROSATOM State Corporation; developing an integrated quality and HSE management system in OJSC TVEL and OJSC Rosenergoatom based on international ISO 9001, ISO 14001, OHSAS 18001 standards and taking into account IAEA Safety Standards Series No. GS-R-3; developing an industry-wide automated radiation monitoring system; developing and implementing automated information systems for environmental monitoring; introducing new technologies for reducing RAW and toxic emissions; holding a roundtable conference "Environmental Protection: R&D and Technical Potential and Prospects" as part

of the ATOMEXPO international forum; holding a National Conference on Environmental Education, a competition "The Most Environmentally Friendly Company in the Nuclear Industry", environmental cleanups, etc.

These measures will help to reduce the environmental impact, introduce new methods for environmental protection, inform Russian and foreign society about the environmental situation in the regions where nuclear power facilities operate, as well as to form an objective opinion on the development of the nuclear power industry.

How do you assess the environmental impact made by the Corporation compared to other large Russian and global companies?

ROSATOM is certainly one of the leaders in the field of ecology. In terms of environmental impact, the nuclear industry compares favorably with other industries. Experts all over the world have recognized nuclear power plants as safer and more environmentally friendly than traditional methods of energy production. For example, to achieve 1,000 MW of power it is required to burn approximately 5 mln t of coal, resulting in radiation exposure higher than when receiving the same amount of energy in a nuclear reactor.

For a long time, we have been calling the attention of the global community to the fact that it is nuclear power that can help to meet many of the challenges related to global warming; one of the reasons for this is that nuclear power generation does not cause emission of greenhouse gases.

What major problems does the Corporation face when implementing its Environmental Policy and how does it solve them?

As both Russian and international environmental legislation constantly changes, we have to deal with the issue of promptly adjusting to these changes and updating industry regulations both in ROSATOM State Corporation and in subordinate organizations. For instance, as Russia has joined the WTO, we need to ensure compliance of the Environmental Policy of ROSATOM State Corporation with international requirements for environmental protection and safety as soon as possible. As Russia is expected to ratify the Convention on Environmental Impact Assessment in a Transboundary Context (the Espoo Convention), we already have to start taking measures to ensure that mandatory international requirements set out in the Convention are fulfilled smoothly and promptly.

Another obstacle to implementing the Environmental Policy of ROSATOM State Corporation consists of the fact that quite often, newly adopted federal regulations do not contain a mechanism for enforcing them. But this problem is national rather than local. We attempt to address these issues in advance and ensure that the Corporation's departments function efficiently, meeting existing legislative requirements for environmental protection and environmental safety.

3.8.1. ENVIRONMENTAL POLICY IMPLEMENTATION

Environmental issues are a focus of special attention at ROSATOM State Corporation. Due to its systematic approach to environmental action the Corporation has achieved encouraging success and noticeably improved environmental performance in recent years.

The ROSATOM State Corporation continually improves its system of environmental protection management and environmental policy implementation.

In April 2012 the RF President approved the "Basic principles of the state environmental development policy for the period through to 2030" (Basic Principles), that have set new challenges for ROSATOM State Corporation. In pursuance of the Basic Principles the OJSC TVEL Environmental policy was updated appropriately in the reporting year.

This systematic work towards achieving environmental policy goals is hinged on the proper functioning of the existing annual planning and reporting system. Therefore, activities were undertaken

in 2012 to update the comprehensive plan of action following the Corporation Environmental policy for the period through to 2015 and the list of environmentally significant organizations and companies that have facilities with potential sources of impact on human health and the environment (the list includes 55 such entities).

In 2012, all environmentally significant organizations and companies of the nuclear industry published environmental reports providing information on their activities to protect the environment and ensure environmental safety (www.rosatom.ru/library/eco_rep/).

Activities to improve the performance of environmental management and quality management systems continued in the reporting year. The certified environmental management systems of OJSC Rosenergoatom head office and all operating NPPs passed inspection and recertification audits for compliance with international

standard ISO 14001:200, and the certificate's validity was confirmed.

Internal audits of the Integrated Management Systems (IMS) were also performed at the OJSC TVEL (Fuel Company) enterprises. In October 2012 an extended follow-up audit of the Integrated Management System was performed, including the OJSC Kovrov Mechanical Plant and OJSC Siberian Chemicals Association. An important element of environmental policy is the monitoring of the availability and validity of the environmental licenses and permits (for emission and discharge of hazardous chemical and radioactive substances, waste handling, including radioactive waste, water use, etc.) at the Corporation entities. A list of the ROSATOM entities that should submit statistical reports on environmental protection was approved in 2012; the list includes 178 entities in the nuclear industry.

 For details see the e-version of the Annual Report

Key Outcomes of the Environmental Impact Mitigation Efforts in 2012:

OJSC Electrochemical Plant Association

Substantial reduction of ozone-depleting freons emissions resulting from refrigeration unit equipment retrofitting.

Reduction of hydrogen and nitrogen oxides due to the temporary shut-down of the plant processing Kampanovskoye deposit kaolin.

OJSC Siberian Chemicals Association

Reduction of sulfur dioxide emissions due to a decrease of the annual average sulfur content from 0.42% to 0.25% in coals burnt in the heat and power plant.

OJSC Angarsk Electrolysis Chemical Association

Reduction of ammonia emissions by 44.8 t, improvement of the uranium

recovery ratio from recycling, and reduction of ammonia solution consumption for uranium precipitation as a result of the comprehensive modernization of the uranium hexafluoride production train.

Kalinin NPP

Modernization of the system removing air pollutants in the solid radioactive waste storage building and special building; completion of major repairs of the reservoir bed structures [reinforcement of coastal sections prone to wind and wave erosion].

Kursk NPP

Reduction of phosphates and nitrogen group compounds discharges into the Reut river. Within the framework of the Kursk NPP Project "Tertiary treatment of waste water treatment facilities effluents to remove phosphates and nitrogen

group compounds" Phase 2 filtration fields [of Phases 1 and 2 Kursk NPP industrial site waste water treatment facilities] pilot operation commenced; monitoring of terrestrial and aquatic ecosystems was performed in the Kursk NPP region.

Kola NPP

A favourable state environmental expert review opinion was obtained for materials substantiating the license to operate Kola NPP power unit No. 4 at 107 % capacity.

Balakovo NPP

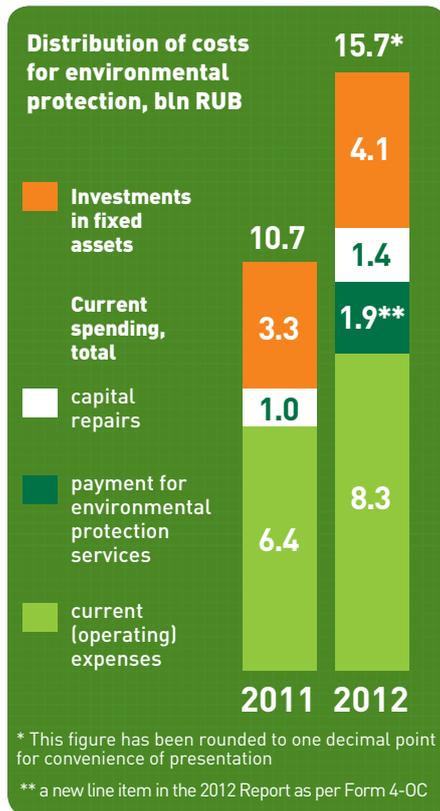
Waste generation reduction by 9.9 % compared with the previous year.

A Phase I information analysis system for industrial environmental monitoring was commissioned.

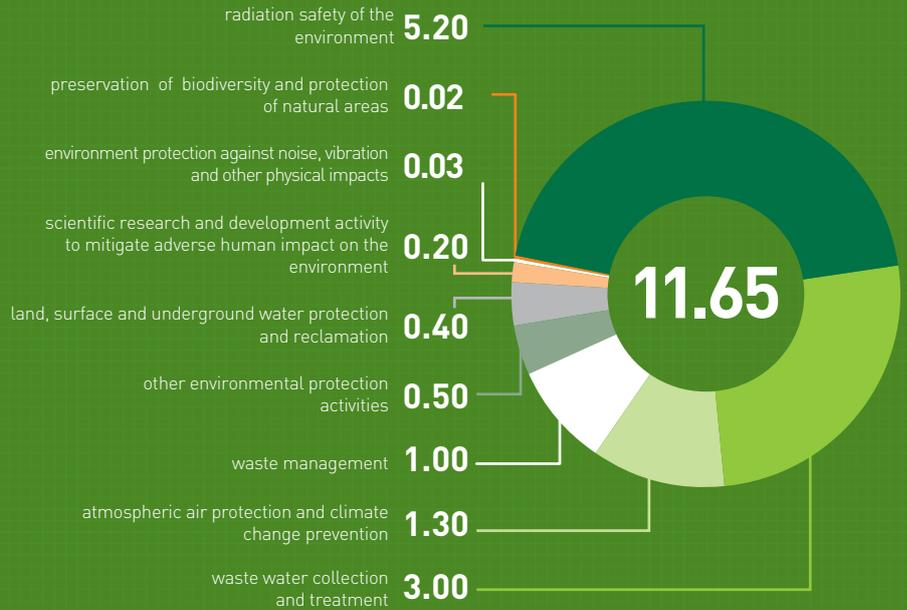
Funding for Environmental Action

General Costs of Environmental Protection

The entities of ROSATOM State Corporation carry out numerous environmental protection activities each year. In 2012, total spending on environmental protection was 15.7 bln RUB*.



Current spending on environmental protection in 2012, bln RUB



Capital Investments

Capital investments in the reporting year amounted to 4.08 bln RUB. Most of the investments (89.5%) were channeled for the protection and rational use of water resources (mainly at Rostov NPP, 2.53 bln RUB). ROSATOM State Corporation and the Corporation entities allocated 91.2% (3.72 bln RUB) of total funds spent on environmental protection.

Capital investments by source of funding, bln RUB



Capital investments to protect the environment and ensure the rational use of natural resources, mln RUB



Environmental Payments

Payments for negative environmental impact in the reporting year amounted to 114.6 mln RUB*, of which 63.0 mln RUB (55%) was paid for excess emissions (discharge) of pollutants (production and consumption waste disposal). Most fees are charged for dumping of waste (76.5 mln RUB, 66.8%) and discharge into water bodies (30.4 mln RUB, 26.5%). The amount of payments in the reporting year was 9.7 mln RUB larger than in the previous year, as a result of an additional 4.8 mln RUB and 4.5 mln RUB paid by OJSC Priargunskoye Mining and Chemical Association and FSUE Mayak Production Association, respectively.

As compensation for damage caused by violation of environmental laws, 11 entities paid legal claims and penalties totaling a sum of 1,321.6 thous. RUB, as follows: OJSC Federal State Research and Design Institute of Rare Metal Industry (Giredmet) — 800.0 thous. RUB, LLC ELEMASH-TEK — 85.0 thous. RUB, Smolensk NPP — 222.6 thous. RUB, OJSC Angarsk Electrolysis Chemical Association — 70.0 thous. RUB, OJSC Experimental Refractory Metals and Hard Alloys Plant (OZTMITS) — 45.0 thous. RUB, OJSC Electrochemical Plant Association — 30.0 thous. RUB, OJSC Chemical-Metallurgical Plant — 30.0 thous. RUB, OJSC Central Design Bureau for Machine-Building — 15.0 thous. RUB, OJSC OKTB IS — 12.0 thous. RUB, FSUE Instrument Making Plant — 10.0 thous. RUB, CJSC SMK-YuG (Construction and Installation Company) — 2.0 thous. RUB.

The sum of payments for violation of environmental laws, regulations on natural resources use and inflicted damage is modest.

Reduction of discharge in excess of quotas, fees for which made up 55% of total environmental pollution penalties, is an important environmental task for ROSATOM organisations.

Monitoring of Subsoil Condition at Nuclear Sites

In 2012, the Subsoil condition monitoring program (SCM) was updated to comply with federal Law No. 331-FZ, dated 21 November, 2011, "Amendments to the Federal Law "On Environmental Protection" and Related Legal Acts of the Russian Federation". The program now encompasses all 55 environmentally significant companies and facilities of the Corporation.

In the reporting year the activities under the Subsoil condition monitoring program were carried out at the sites of 34 enterprises of the industry (at 7 of them — for the first time ever).

For details see the e-version of the Annual Report

Payment for negative environmental impact (environmental payments), mln RUB



3.8.2. ENVIRONMENTAL IMPACT

Impact on the Biota (Environmental Impact Assessment)

Within the framework of the Federal Target Program "Ensuring nuclear and radiation safety in 2008–2015" work is underway to assess environmental impact from nuclear and radiation hazardous sites (NRHS).

Statistical analysis of recent 10-year data of radiation monitoring shows that technogenic radionuclide concentrations in the natural environment of the areas of Novovoronezh, Leningrad, Kola and Balakovo NPPs, facilities of Leningrad Section of the North-West Branch of RosRAO, FSUE Mining and Chemicals Association and Siberian Chemicals Association are in line with the average values that are characteristic of the respective regions, and stem from various environmental pollution factors including the Chernobul NPP accident. At present, impacts from the monitored nuclear and radiation hazardous facilities that contribute to some extent to the man-made radiation background are traced within the limits of the facilities buffer zones.

Radiation doses for biotic components of natural terrestrial ecosystems located within the zone of impact from nuclear and radiation hazardous facilities are within the range (0.9–5.2)·10⁻⁴ to (3.8–7.3)·10⁻⁹ Gy/year as regards the existing and expected exposure. Levels of radiation exposure of freshwater hydrobionts do not exceed 4.3 mGy/year. The comparative analysis of the monitoring results and safe levels of radiation exposure of various groups of organisms has demonstrated that the actual values are by several orders of magnitude lower than the values recommended by the UN Scientific Committee on the Effects of Atomic Radiation.

The year 2013 was declared the Year of Environmental Protection in Russia. In 2012, ROSATOM State Corporation developed Guidelines specifying basic requirements to supplement the efforts implied by the Year of Environmental Protection.

Flora and fauna in the impact zone of the nuclear facilities inspected are not expected to display radiation effects associated with a decrease in viability, fertility and longevity.

The assessment performed of the environmental impact from the nuclear and radiation hazardous facilities confirms that under normal operation Novovoronezh, Leningrad, Kola and Balakovo NPPs, facilities of Leningrad Section of the North-West Branch of RosRAO, FSUE Mining and Chemicals Association and Siberian Chemicals Association do not make any significant contribution to the radiation exposure to natural habitats and biota. The radioecological situation in the radiation control zones satisfies the criteria of sound environment.

Radionuclide Emission and Discharge

In 2012, nuclear industry facilities operated without any accidents and incidents that could adversely affect the environment.

The total radionuclide activity emitted to the atmosphere by the Corporation companies decreased by 18% down to $3.48 \cdot 10^{15}$ Bq in the reporting year compared with 2011. The above mentioned reduction results from lower emissions by facilities of OJSC SRC NIIAR, FSUE L.Ya. Karpov Physical-Chemical Research Institute (Karpov NIFKhI), certain NPPs and the transfer of the National Scientific Center — Institute of High Energy Physics (GNTs IHEP) outside the Corporation structure.

87.7 % of total activity is from released beta-active nuclides ($3.02 \cdot 10^{15}$ Bq), where $2.62 \cdot 10^{15}$ Bq (86.6 %) is the share of inert radioactive gases, and $2.46 \cdot 10^{14}$ Bq (8.1 %) is tritium.

In alpha-active radionuclide emissions 96.18 % ($4.64 \cdot 10^{14}$ Bq) are caused by radon-222 ($4.46 \cdot 10^{14}$ Bq) from uranium mining. Compared to the previous year, alpha-active nuclide emissions rose by 14.5 %, since Priargunskoye Mining and Chemical Association increased its emissions of radon-222.

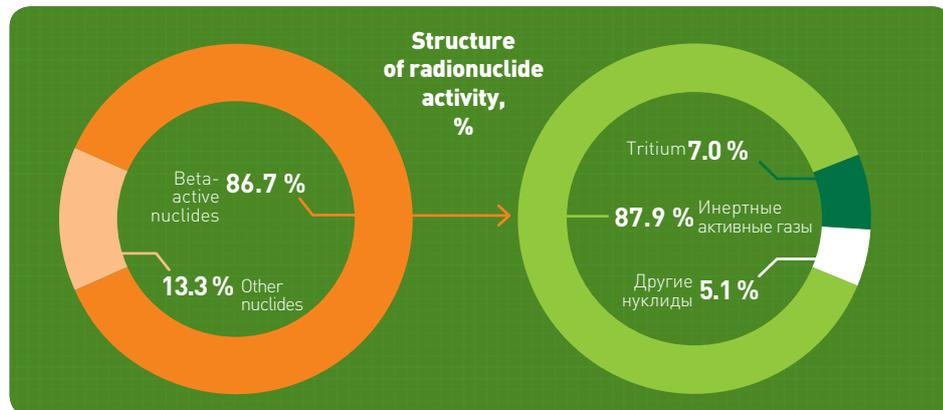
In the industry as a whole, alpha-active nuclide emissions were about 25% and beta-active nuclides were less than 0.5% of the permitted level.

Quantities of released cobalt-60, strontium-90, zirconium-95-niobium-95, ruthenium-103, ruthenium-106, iodine-131, caesium-134, and caesium-137 made up less than 0.001% of established limits.

There was individual exceedance of emissions of individual radionuclides (tritium,

europium-155, europium-156, iridium-192, etc.) above established permissible limits, reported only by OJSC State Research Center — Research Center of Nuclear Reactors (SRC NIIAR), which also achieved an

overall reduction of radionuclide emissions by approximately 59% as well as compliance with the the limits of the effective dose to population from exposure to emissions/dischARGE of radionuclides.



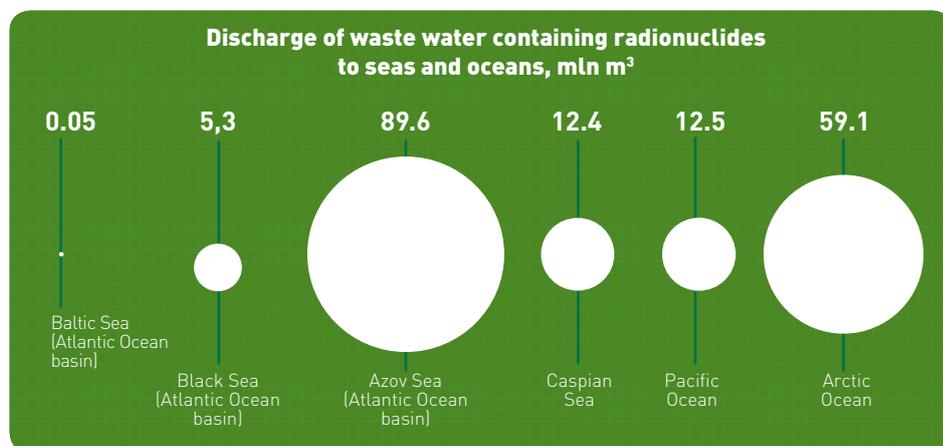
Ratio of actual radionuclide emissions to the permissible limit

Emissions, Bq	Alpha	Beta
Actual	4.64E+14	3.02E+15
Permitted	1.85E+15	6.14E+17

Ratio of actual radionuclide discharge to the permissible limit

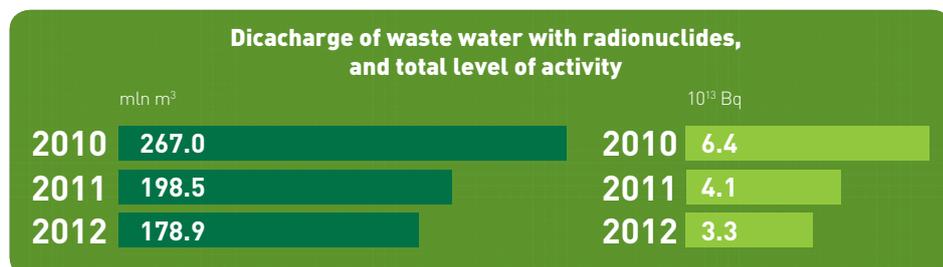
Discharge, Bq	Alpha	Beta
Actual	2.91E+10	3.33E+13
Permitted	2.34E+11	2.40E+15

ROSATOM organisations discharged 178.91 mln m³ of waste water to surface water bodies in 2012, with an activity of $3.332 \cdot 10^{13}$ Bq.



Discharge of radionuclide-contaminated waste waters has been steadily declining for a number of years, as has their overall activity level. Discharge to surface water bodies during the reporting year decreased by 19.6 mln m³ compared with 2011, and

activity by $7.6 \cdot 10^{12}$ Bq, as the Mayak Production Association reduced its discharge of waste water by 18.7 mln m³, Novovoronezh NPP by 17.99 mln m³, FSUE Mining and Chemical Plant by 0.41 mln m³, Priargunskoye Mining and Chemical Association by 0.83 mln m³.



The total activity of waste water discharged by companies to surface bodies consisted almost completely of beta-active nuclides ($3.329 \cdot 10^{13}$ Bq), where 98.6% of activity is tritium. The proportion of the most dangerous nuclides was not above 2% of beta-active discharge, including 1.26% of strontium-90, and 0.04% of caesium-137, while 92.9% of alpha-active radionuclides ($2.76 \cdot 10^{10}$ Bq) was due to natural uranium.

Companies did not exceed their respective quotas for radionuclide discharge in 2012. Total alpha-active nuclide discharge to natural waters was approximately 12.4% of the permissible limit and the level for beta-active nuclides was less than 1.4%.

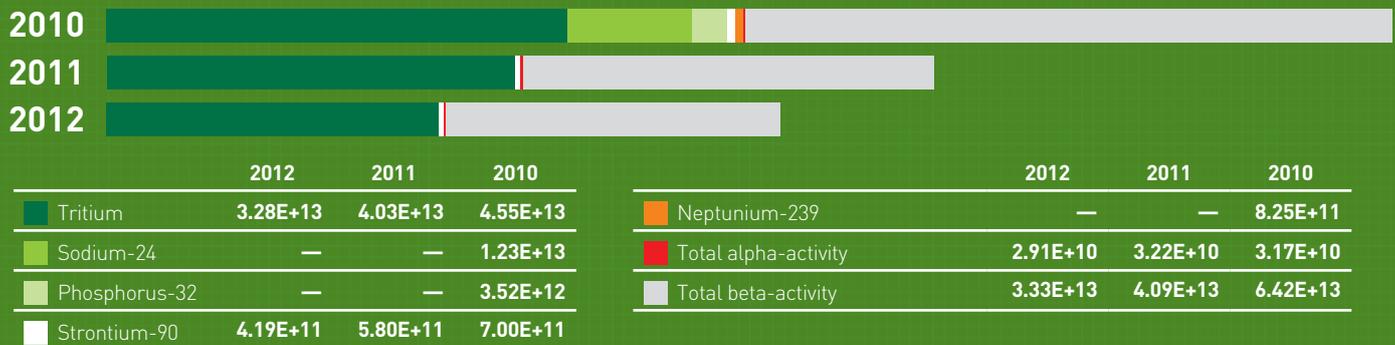
Main contribution to discharge of alpha-active radionuclides

Alpha-active radionuclides	Bq
Natural uranium	1.51E+10
Thorium-230	5.84E+09
Total uranium nuclides	1.92E+09
Polonium-210	1.35E+09
Radium-226	4.90E+08
Total alpha-active nuclides	2.43E+07
Total plutonium nuclides	5.92E+06

Main contribution to discharge of beta-active radionuclides

Beta-active radionuclides	Bq
Tritium	3.28E+13
Strontium-90	4.19E+11
Caesium-137	1.21E+10
Cobalt-60	4.11E+09
Other beta-active radionuclides	1.22E+10

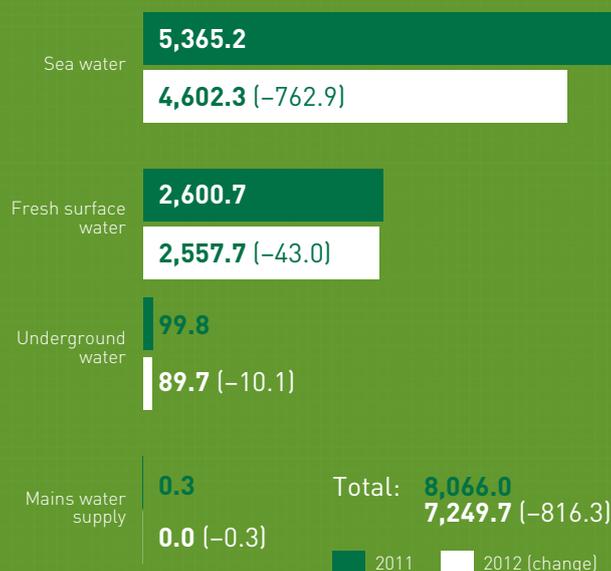
Discharge by radionuclide type, Bq



Use of Water

The nuclear industry is a major user of water: in 2012 it accounted for 9.3% of the annual total intake from natural water bodies in Russia (10.5% in 2010).

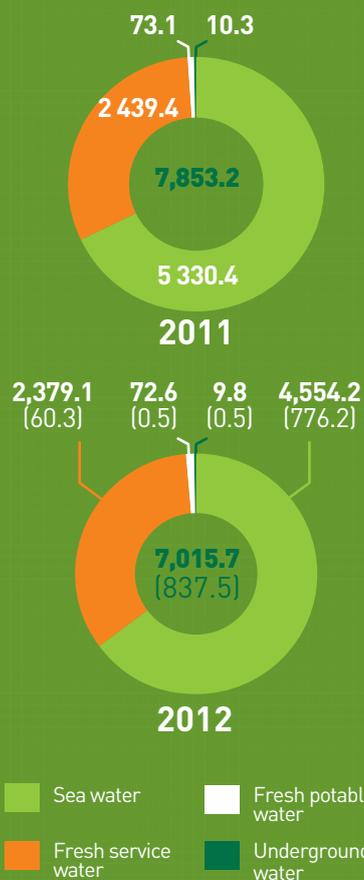
Water intake mln m³*



Water use for own needs, mln m³



Water use for production needs, water intake and recirculation, mln m³



Water use for production needs, water intake and recirculation, mln m³



Leningrad NPP contributed 789.6 mln m³ to the total of 837.5 mln m³ reduction of water consumption for production needs.

A total of 37,064.7 mln m³ of water was consumed for production needs, of which: fresh water from natural sources — 7,015.7 mln m³, circulating and reused water — 30,049.0 mln m³•. Water savings through water recirculation and reuse amounted to 81.1% (without taking into

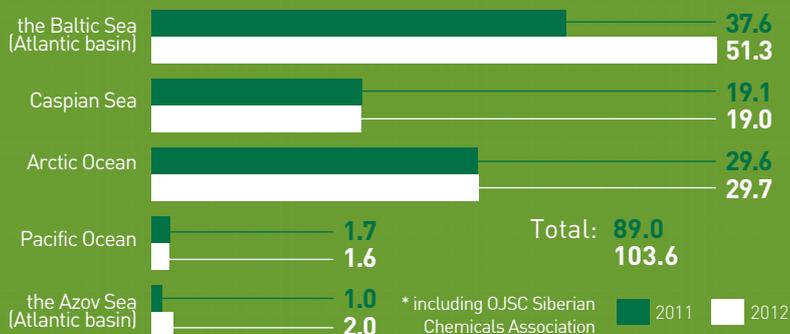
account sea water — 92.4%), that is considerably higher than the RF average figure. The volume of water recirculation and reuse rose by 2,525.9 mln m³, of these: at Kalinin NPP — by 1,279.0 mln m³, Novovoronezh NPP — by 1,081.6 mln m³, Leningrad NPP — by 159.1 mln m³

Wastewater disposal

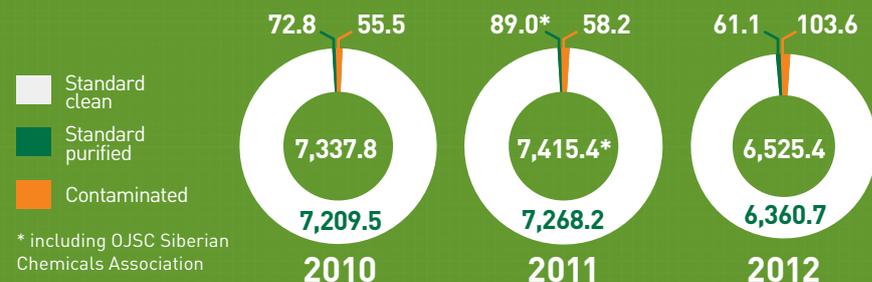
Discharge of waste water to open natural water bodies, in mln m³



Dynamics of contaminated waste water, by ocean basin*, mln m³



Dynamics of waste water to open natural water bodies*, mln m³



The structure of pollutants discharged to natural water bodies in waste water is dominated by dry residue (45,600 t), sulfates (9,000 t), chlorides (8,800 t), suspended solids (1,800 t), and nitrates (1,200 t).

Compared to 2011, discharge of certain pollutants to open natural water bodies has reduced: Hazard class 2 — by 89.5 t, Hazard class 3 — by 62.1 t, hazard class 4 — by 665.2 t, other — by 310.1 t.

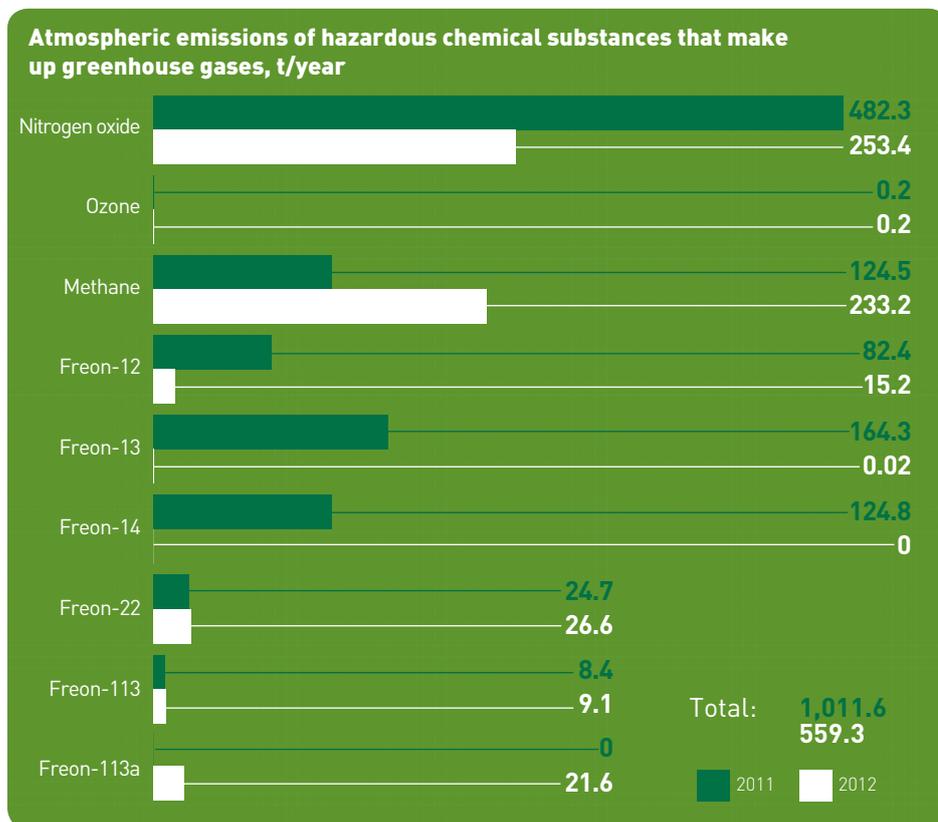
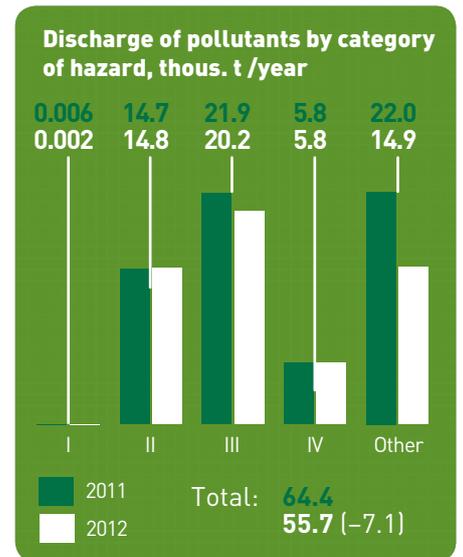
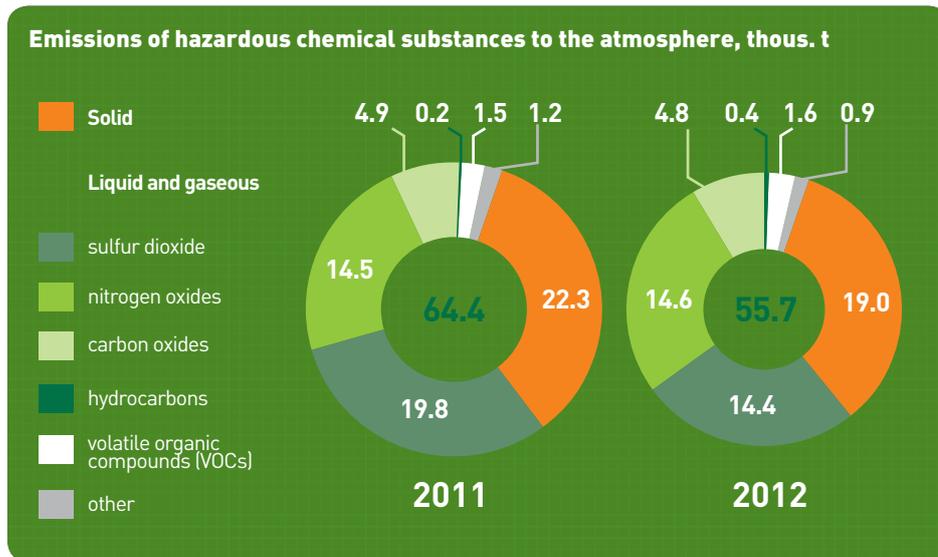
Compared to the previous year, discharge of contaminated water rose by 14.6 mln m³ (16.4%). Discharge of contaminated water to surface water bodies amounted to

103.6 mln m³•, most of which (80.9%) came from: FSUE Alexandrov Technology Institute — 48.315 mln m³ (46.6%), OJSC Elektrokhimpribor — 14.366 mln m³ (13.9%), OJSC Siberian Chemicals Association — 11.579 mln m³ (11.2%), FSUE Start Production Association named after M. V. Protsenko — 9.549 mln m³ (9.2%).

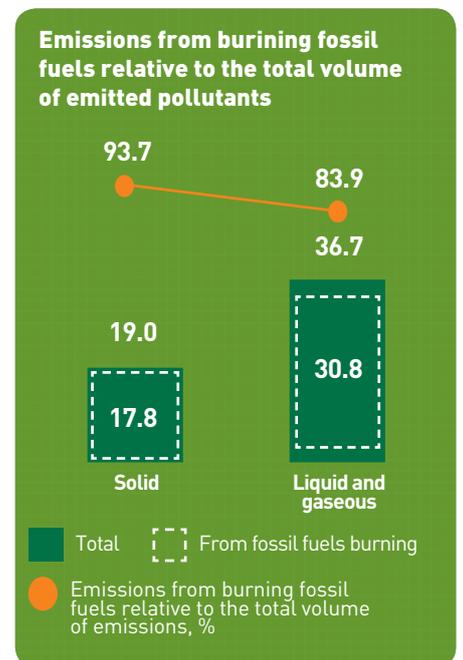
The volumes of contaminated waste water discharged to surface water bodies have been in decline for the last decade: contaminated water discharge in the reporting year was half the 2003 value (204.9 mln m³ in 2003, 103.6 mln m³ in 2012). This reflects efforts by industry companies to reduce discharges as a matter of environmental priority.

Emissions of Hazardous Chemical Substances

Emissions of hazardous chemical substances to the atmosphere in 2012 were 55,700 t* while 83.7 % of emissions were captured by special equipment



The largest contribution (87.2%) to nuclear industry emissions is from fossil fuel generation and boiler installations. Fossil fuel power plants of OJSC Siberian Chemicals Association, Priargunskoye Mining and Chemicals Association, and FSUE Mining and Chemicals Association remain major sources of emissions.



Compared to the previous year the following emissions to the atmospheric air were lower:

- hazardous chemical substances, which make up greenhouse gases, decreased by 452.2 t, as follows: 229.0 t of nitrogen oxide (at FSUE Mining and Chemicals Association, Belayarsk NPP, FSUE Mayak Production Association, OJSC Urals Electrochemical Association, FSUE Russian Federal Nuclear Center - All-Russian Research Institute of Industrial Physics, FSUE Elektrokhimpribor);
- 356.2 t of freons -12, -13, -14 (OJSC Chepets Mechanical Plant discontinued using freons).



Compared to 2011, emissions from fossil fuel generating and boiler installations reduced by 8.723 thous. t (mainly due to OJSC Siberian Chemicals Association and FSUE Mining and Chemicals Association).

The actual emissions of hazardous chemical substances to the atmospheric air in 2012 did not exceed the permissible limits (permitted emissions — 140.3 thous. t, actual emissions — 55.7 thous. t).

Production and Consumption Waste

ROSATOM organisations generated 21.9 mln t of production and consumption waste in 2012, of which 21.8 mln t (99.5%) was non-hazardous (hazard class V). Most of the volume was generated by Priargunskoye Mining and Chemicals Association (21.3 mln t) in the form of overburden rock and tailings from ore-processing.

Waste generation reduced from 22.7 mln t in 2011 to 21.9 mln t in 2012 mainly due to the following entities:

- OJSC Priargunskoye Mining and Chemicals Association — from

22.2 mln t in 2011 to 21.3 mln t in 2012 due to reduction of the volume of waste in Hazard category 5 (overburden and waste rock reduction from 22.0 mln t in 2011 to 21.1 mln t in 2012);

- OJSC Siberian Chemicals Association — from 310.3 thous. t in 2011 to 296.7 thous. t in 2012 due to reduction of the volume of waste in Hazard category 5 (mainly slag and ash from the fossil fuel power plant reduction from 290.8 thous. t in 2011 to 274.9 thous. t in 2012);
- OJSC Chepets Mechanical Plant — from 20.7 thous. t in 2011 to 10.6 thous. t in 2012 due to reduction of the volume of waste in Hazard

category 4 (mainly waste containing fluorides, emulsions and emulsion mixtures with oils or petroleum products, etc. reduction from 6.0 thous. t in 2011 to 2.7 thous. t in 2012); waste in Hazard category 5 (mainly waste containing coal combustion ash and slag reduction from 5.2 thous. t in 2011 to 1.7 thous. t in 2012).

Waste in Hazard categories 3, 2 and 1 was less than 0.01% of total waste accumulated as of December 31, 2012, while category 4 was 1.2% and 98.8% of waste was in category 5 (no hazard).

Generation and storage of waste, by category of hazard, thous. t



Generation and storage of waste, by category of hazard

Types of waste	As of 01.01.2012* thous. t	Generated during the year, thous. t	Waste from 2012 used and neutralized		Delivered to other entities, thous. t	Stored at companies, thous. t	As of 31.12.2012, thous. t
			thous. t	%			
Hazard category 1	0.4	0.236	0.017	7.2	0.2	0.0	0.4
Hazard category 2	0.3	10.04	8.56	85.3	9.9	0.2	0.3
Hazard category 3	9.5	6.0	0.9	14.1	4.6	1.4	9.7
Hazard category 4	4,691.2	107.6	30.0	27.9	97.5	20.9	4,654.2
Hazard category 5	394,098.1	21,759.3	21,193.6	97.4	142.9	434.4	394,224.0

* data reflect the expanded structure of ROSATOM State Corporation

In 2012, (likewise in the previous year), ROSATOM entities received no waste from outside Russia. No information on the export of waste is available in the statistical reporting form 2-TП (waste). Waste delivered to other entities amounted to 255.1 thous. t.

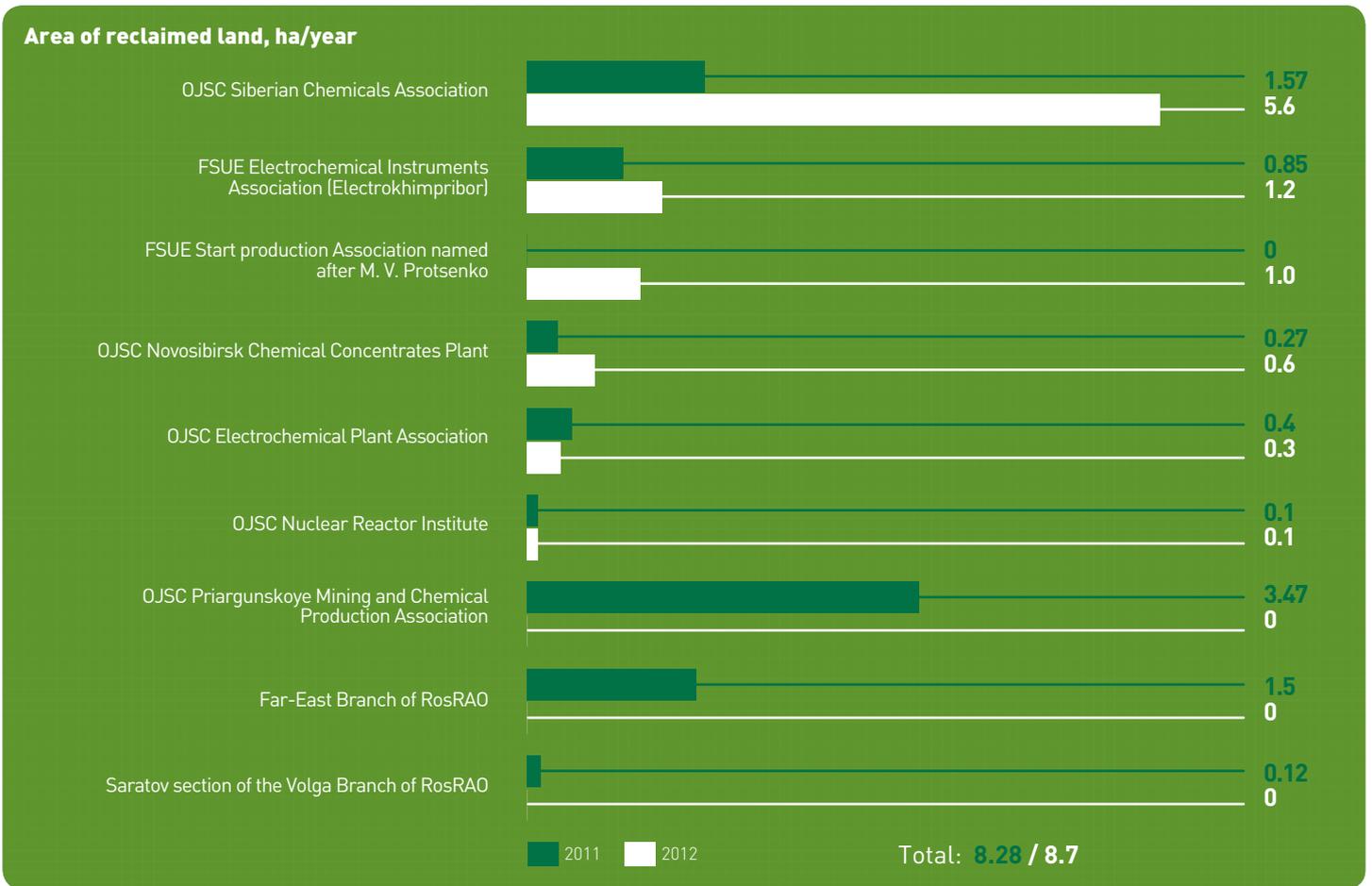
In the reporting year used and neutralized waste accounted for 97%, of waste delivered to other entities — 1%

of waste stored and kept for disposal at the operating facilities — 2% of the total amount of waste generated by the companies and received from other.

Waste inventory is taken as given under Russian law (hazard categories as per the Federal Classification Catalog of Waste, approved by the Federal Ministry of Natural Resources, Order No. 786 dated 02.12.2002).

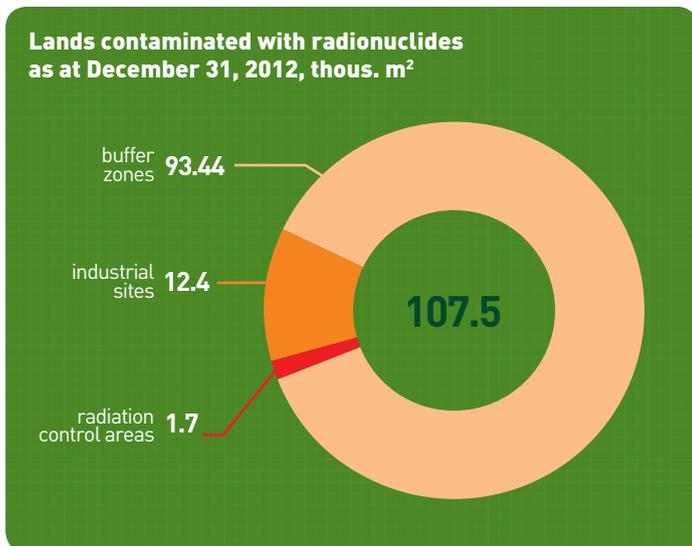
Disturbed and Reclaimed Land

As of December 31, 2012, the area of land disturbed by nuclear companies was 5,037.9 ha*, of which 2,908.9 ha was disturbed by mining, 1,988.7 ha by industrial construction, 1.1 ha by disposal of industrial (including construction) and solid domestic waste, and 139.2 ha by other activities.



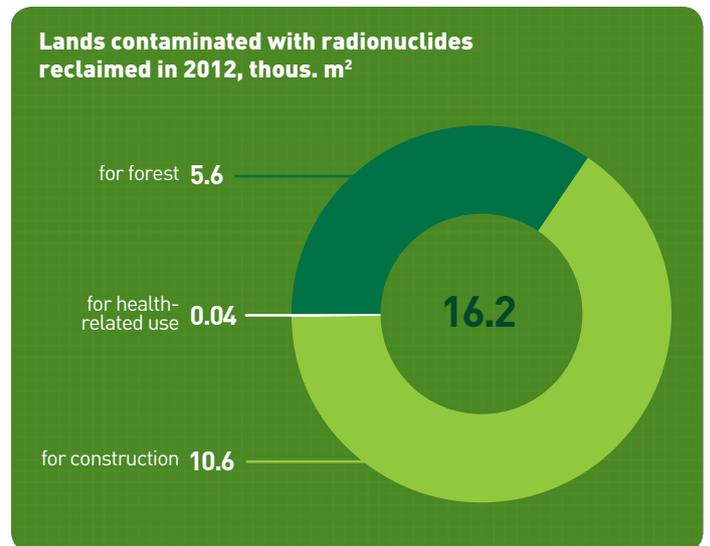
The area of land reclaimed during the reporting year was 8.72 ha. Land was reclaimed for water reservoirs, forest planting and other purposes.

As at the end of 2012, lands contaminated with radionuclides were to be found at the sites of 21 industry facilities.



Radioactive contamination is caused mainly by nuclides of caesium-137, strontium-90, natural uranium and uranium decay products. Over 87 % [93.12 km²] of lands contaminated with radionuclides are located around the FSUE Mayak production Association (consequences of the 1957 accident).

In the last five years, 106.75 thous. m² of contaminated lands have been reclaimed*.



A considerable reduction in the area of contaminated lands compared to 2011 is associated with the revised criteria for qualifying territories as being contaminated with radionuclides (existence of objects of natural environment with a level of contamination that qualifies them as radioactive waste), and followed the enactment on 11 July, 2011 of Federal Law No. 190-FZ "On the handling of radioactive waste and amendments to certain legal acts of the Russian Federation", and legislative instruments of implementation thereof.

3.8.3. IMPROVING ENERGY EFFICIENCY

Results in 2012

The actual cumulative reduction of expenditure on improving energy resources in 2010–2012 relative to the 2009 baseline is in comparable terms 8.8 bln RUB. Taking into account the average growth of tariffs for energy resources (a 25 % increase relative to 2012), the minimum saving, if expressed in current tariffs, is 11 bln RUB. •

Savings have been achieved by administrative efforts, restructuring of company assets, a commitment to energy efficiency by the Corporation entities, and implementation of investment activities under the program for energy saving and efficiency improvement in the nuclear

industry for 2012–2016. The volume of investments constituted approximately 5.9 bln RUB over the period between 2010 and 2012.

Energy Audits

The previous years' effort to carry out energy audits, including thermal imaging of buildings and structures, continued in 2012. Following the energy audits, programs for energy saving were designed.

Energy Saving

The 2012 energy savings are 17.6% compared to 2009 (in comparable

terms) amounting to approximately 4.17 bln RUB•. The savings are calculated at 2009 prices in order to avoid distortion due to tariff changes.

Energy savings are estimated in accordance with the method for the calculation of savings from lower energy consumption in comparable terms. Energy efficiency is assessed for such utilities as electric power (for industrial processes, general plant and household needs), heat energy (in steam and hot water), water (process and service water), industrial and sanitary effluents.

Volume of energy saved through efforts to reduce energy consumption and increase efficiency

ROSATOM entities	Heat, thous. GCal	Electric power, thous. KWH	Water, thous. m ³	Sewage, thous. m ³	Other (natural gas, etc.), thous. m ³
Complex for nuclear and radiation safety	99.7	309,434	295,710	286,684	34
Nuclear weapons complex	358	166,355	2,262	2,241	32,140
Innovation management unit	5.2	22,773	851	2,276	3,240
Nuclear power complex	2,006	2,293,372	168,615	129,296	86,308
Total	2,468.9	2,791,934	467,438	420,497	121,722

Plans for 2013 and the mid-term period

- to complete energy audits at Corporation entities and the development of Programs for energy saving and efficiency improvement (at FSUE State Research Institute of Graphite-Based Structural Materials (NIIgrafit), CJSC Saint Petersburg Isotope, FSUE L.Ya. Karpov Physical-Chemical Research Institute (Karpov NIFKhl), OJSC Dedal scientific and Production Complex, OJSC Nizhny Novgorod Research, Design, Engineering and Survey Institute Atomenergoproekt, etc.);

- to implement energy saving programs designed on the basis of findings of the ROSATOM entities energy audits;
- to deploy an automatic energy efficiency control system at a minimum 50 facilities, to monitor 60 % of the total consumption of fuel and power resources;
- to reduce utility consumption by the industry in monetary terms by 20% in 2013, 25% in 2015 (relative to the 2009 baseline and in comparable terms).

For details see Sections "Mining division" on page 121, "Fuel division" on page 123, "Machine Building Division" on page 125, "Electric Power Division" on page 127

3.8.4. RISKS AND OPPORTUNITIES ASSOCIATED WITH CLIMATE CHANGE

Global, regional and local climate change issues are coming under the increased scrutiny and control of the Corporation executive management. The problem of climate change is addressed and objectives related to its resolution are set at both national and corporate levels.

In accordance with Item 19 of the comprehensive program developed by the Corporation to implement the Climate Doctrine

of the Russian Federation for the period up to 2020, ROSATOM has committed to carry out actions to curb greenhouse gas emissions, including the implementation of innovative technologies using nuclear power. The ROSATOM strategic initiative to raise the share of nuclear generation in the total electricity generation of Russia up to 20-22% by 2020 through increasing nuclear power generation capacity and output, and commissioning new nuclear power generation facilities, ousts such traditional energy sources as hydrocarbons from the energy system of Russia, and therefore reduces greenhouse gas emissions to the atmosphere.

Any potential adverse consequences and higher risks for ongoing operations are associated with climate change and unpredictable weather conditions. However, the probability of extreme weather conditions in locations of Corporation facilities is assessed as low and the risk of serious consequences or damage to nuclear facilities is minimal. The risks of climate change to personnel, their health and employment, are no higher than other industry averages, and do not impair the continuity of operations.

The global consequences of climate change, specifically, the change in the level of the world oceans or water shortages, have no practical effect on operations of the nuclear industry facilities. Therefore, global climate change poses virtually no risks for the Corporation.

Climate phenomena impacts manifest themselves primarily as effects on the corporate financial stability and corporate investments. An objective assessment of climate-related risks reveals the nuclear industry to have advantages compared to other power industries that are more vulnerable to climate change. This information is of strategic financial significance for ROSATOM State Corporation, since it enables it to focus on regulatory risks that imply additional costs to provide for the ongoing operations' compliance with improved legislation, including new rules and standards of power use intended to raise energy efficiency and to curb and curtail greenhouse gas emissions.

3.8.5. FORECAST OF THE CORPORATION'S AND ITS ENTITIES' ENVIRONMENTAL IMPACT, EFFORTS TO MITIGATE IMPACTS AND ENSURE ENVIRONMENTAL SAFETY RECOMMENDED FOR 2013 AND THE MID-TERM PERIOD

The entities of ROSATOM State Corporation consistently carry out numerous environmental protection activities in order to mitigate adverse environmental impacts. The volume of capital investments from all sources of funding that are used to protect the environment and ensure the rational use of natural resources grows year on year. Specifically, the Corporation entities allocate their own funds for the construction and commissioning of facilities and

systems that prevent environmental pollution and minimize radiation impacts, including hazardous off-gases abatement units, waste water treatment plants and circulating water supply systems. The volume of financing is expected to keep on growing in the future.

 For details see the e-version of the Annual Report



Section 4

Results of the Realization of Strategy in 2012

Results achieved by ROSATOM State Corporation in 2012 contribute substantially to the implementation of the Corporation's long-term strategy up to 2030 on each of the five strategic goals.

- 4.1. Ensuring the Realization of State Priorities by the Corporation Within the Accomplishments of State Authorities in the Established Business Line 104**
- 4.2. Strengthening the Innovative Development of Russian Nuclear Technologies and Expanding their Application 110**
- 4.3. The Effective NPP-Generated Power Supply of the Economy of the RF..... 121**
- 4.4. Strengthening our Position as Global Player in the World Market of Nuclear Technologies and Services 131**
- 4.5. Nuclear and Radiation Safety and the Comprehensive Resolution of Outstanding Nuclear Legacy Problems 141**

806

The number of patents on inventions, utility models and pre-production prototypes, certificates for computers and databases, the number of registered know-how

>50

Regulations adopted in 2012 involving ROSATOM State Corporation

10-year portfolio of overseas orders

\$66.5

bln

177.3

bln kWh
Power generation by NPPs

0

Events rated above INES level 2

4.1. Ensuring the Realization of State Priorities by the Corporation Within the Accomplishments of State Authorities in the Established business line

4.1.1. REALIZATION OF STATE FUNCTIONS



Tatiana Elfimova, Deputy Director General for Government Functions and Budget Process, State Secretary

ROSATOM is an organization responsible for carrying out the government policy on nuclear energy; however, at the same time, it conducts business. How does it manage to successfully overcome this dichotomy?

The use of nuclear energy has a special nature; it differs significantly from other industries. The key difference consists in the fact that the full lifecycle of nuclear power facilities is very lengthy. It is much

longer than the term of employment of the employees that operate them. Therefore, it is necessary to manage the life of such facilities in the long term, which is done by the state.

Ultimately, the goal of the government policy and government management is a powerful state and the well-being of its citizens; but to achieve this, one needs sources and resources formed on a commercial basis.

“In order to successfully overcome this dichotomy” means to fulfill the tasks related to ensuring efficient development of the nuclear industry, providing resources for the economy and the life of the population both now and in the future. In other words, efficient management is based on responsibility for one’s work both now and for the future generations.

What are the main targets of the government policy on nuclear energy for the next few years?

The government policy on the use of nuclear energy is aimed at implementing the intensive development program and at the same time ensuring absolutely

safe operation of all facilities. It is aimed at developing and introducing effective decommissioning technologies, at recycling, treatment and disposal of radioactive waste, at eliminating the “nuclear legacy”. Another equally important task is to form a pool of highly qualified employees.

Efficient management of budget expenditure is one of the key issues faced by state-owned companies. How does the Corporation deal with it?

Efficient management of budget expenditure contributes substantially to the performance better of a State Corporation; therefore, at each stage of operations, targets for project implementation are set and the risk of missing the deadline is assessed. All procedures are established clearly. This approach enables us to control project implementation, which is a prerequisite for efficient management of budget expenditure, as well as any other kind of resources.

REGULATORY ACTIVITY

The rapid development of the nuclear industry and the expansion of applied nuclear technologies require a major updating of the legal framework.

In 2012, the following federal laws were adopted:

- the federal law dated 29.12.2012 No. 275-FZ “On state defense orders”, whereby ROSATOM State corporation is defined as a federal customer of state defense orders;
- the federal law dated 25.06.2012 No. 93-FZ “On amending certain legislative acts of the Russian Federation regarding state control (supervision) and municipal control”, that commit the Corporation to register dangerous production facilities;

- the federal law dated 10.07.2012 No. 117-FZ "On amending the Federal law "Technical order of fire safety regulations" that obligates the allocation of fire-fighting units to NPPs regardless of their capacity.

Moreover, in 2012, ROSATOM State Corporation, together with the relevant federal executive authorities, was directly involved in the development of the following Federal laws:

- The federal law dated 29.12.2012 No. 273-FZ "On education in the Russian Federation",
- The federal law dated 03.12.2012 No. 216-FZ "On the federal budget for 2013 and the budget period 2014-2015".

In total, ROSATOM State Corporation has recently prepared and ensured the adoption of more than 50 regulatory acts, aimed at the implementing the demands of ROSATOM State Corporation and handling the problems of the development of the nuclear industry ([see the report of the ROSATOM State Corporation prepared for the RF Government](#)), including:

- the issuing of regulatory acts necessary for the implementation of the Federal law dated 11.07.2011 No. 190-FZ "On RAW handling and on amending certain legislative acts of the Russian Federation" and Federal law dated 30.11.2011 No. 347-FZ "On amending certain legislative acts of the Russian Federation for the purpose of regulating security in the field of nuclear energy usage";
- the participation of the Corporation in the development of federal laws (the federal law dated 29.12.2012 No. 275-FZ "On state defense orders", the federal law dated 25.06.2012 No. 93-FZ "On amending certain legislative acts of the Russian Federation regarding state control [supervision] and municipal control");
- the adoption of the Russian Federation Government Decree dated 29.06.2012 No. 660 "On the implementation of budget investments in the construction of main general-purpose atomic icebreaker", prepared by ROSATOM State Corporation together with the relevant federal executive authorities, and defining the Corporation as a state customer regarding the construction of the main general-purpose 60 MW atomic icebreaker to be put into operation in 2017.

EXECUTION OF PRESIDENTIAL AND GOVERNMENTAL DECREES

In 2012, ROSATOM State Corporation executed the following Presidential and Governmental Decrees:

- The Decree of the RF Government Chairman, dated 17.05.2011, No. VP-P7-346. ROSATOM State Corporation together with the relevant federal executive authorities and organizations developed "Basics of state policy ensuring the nuclear and radiation safety of the Russian Federation to 2025" which was approved by the President of the RF on 01.03.2012 by No. Pr-539;
- The Decree of the RF Government, dated 30.06.2010 No. 1101-r "On the approval of a Federal Government Program for efficient budget spending to 2012". ROSATOM State Corporation prepared and approved an industry plan for higher efficiency of budget expenditure in 2012.

In 2012, the Corporation also approved the implementation of the roadmap of Presidential Decrees dated 07.05.2012.

INTERACTION WITH THE RUSSIAN FEDERAL ASSEMBLY

ROSATOM State Corporation cooperated with the Chambers of the Russian Federal Assembly in the regular monitoring of more than 140 draft laws in 2012. The position of ROSATOM State Corporation as a state customer is confirmed in the laws "On state defense orders" and "On the federal contract system".

Results in 2012

- the preparation of amendments to 5 draft laws, acceptance of amendments to three draft laws on the Corporation's initiative;
- the participation of Sergey Kiriyenko in parliamentary sessions of the Defense and Safety Federal Assembly Committee regarding "Conditions and modernization problems of the military-industrial complex of the RF" and in the weekly TV news program called Parliament Hour with the Deputy Government Chairman of the Russian Federation, Dmitry Rogozin;

- the participation of representatives of the Corporation in seven roundtable discussions, three parliamentary sessions, 12 meetings of committees, panels and expert boards of the Federal Assembly, 13 international and inter-regional forums, congresses and conferences;
- the participation of representatives of the Russian Federal Assembly in three public hearings regarding questions of the environmental impact of Novovoronezhsk, Balakovsk and Belyarsk NPPs;
- joint business trips by ROSATOM State Corporation and Russian Federal Assembly representatives to Finland, France and Sweden.

ALLOCATION OF BUDGET FUNDS AND FTP REALIZATION IN 2012

ROSATOM State Corporation is authorized to act as chief manager of budget funds (CMBF), which means budgeting for the Russian Federal Treasury. Budget accounting is performed in accordance with the norms of budget legislation and the regulatory standards framework of the chief manager of budget funds. Nuclear materials that are only federally owned, including government reserves of special raw materials and fissionable materials, are liable to budget accounting.

ROSATOM State Corporation is also entrusted with restricted authority as chief administrator of budget revenues, including proceeds from exports of highly enriched uranium and the raw component material of low-enriched uranium.

The function of chief budget manager enables better control of budget spending by the Russian Ministry of Finance and the Russian Audit Chamber, and ensures the growth of budget management efficiency.

FTP implementation

In 2012, companies and organizations of ROSATOM State Corporation supported activities listed in section I "Power industry" of part 3 "Development of the nuclear power industry complex" of the Long-term Action Program for ROSATOM State Corporation (2009–2015) (Action Program), in 9 federal target programs (FTPs).

For the implementation of FTPs and for section I "Power industry" of part 3 "Development of the nuclear power industry complex" of the Long-term Action Program for ROSATOM Nuclear Power State Corporation, the financing allocated in 2012 amounted to 152,659.2 mln RUB, including co-financing from federal budget funds amounting to 84,480.6 mln RUB, with 135.6 mln RUB coming from the budgets of administrative regions of the Russian Federation and local budgets, while 68,043.0 mln RUB was received from off-budget funds.

The ratio between government funds and personal funds received from product realization (work and services) by ROSATOM State Corporation amounted to 0.25 in 2012 (0.30 in 2011)

Federal budget funds received by ROSATOM State Corporation in 2012, bln RUB

Type of spending	Amount received
Federal budget, total	119.9
• including:	
– contributions in kind	58.8
– volume of budget allocations for FTP implementation	26.3
• including:	
– contribution to registered capital	1.3

Implementation of federal target programs in 2012

FTP	Actual financing, total, mln RUB	including:			Implementation of FTP in the reporting period, %	including:		
		from the Federal Budget, mln RUB	from budgets of administrative regions, mln RUB	from off-budget sources, mln RUB		from the Federal Budget, %	from budgets of administrative regions, %	from off-budget sources, %
Fire safety in the Russian Federation up to 2012	22.0	22.0	-	-	100.0	100.0	-	-
Developing the electronic component and radio electronics industries in 2008-2015	1,859.8	1,124.1	-	735.7	102.1	100.0	-	105.5
Developing the pharmaceutical and medical industry in the Russian Federation to 2020 and up	388.3	319.0	-	69.3	84.8	99.7*	-	50.2
Next-generation nuclear power technologies for 2010- 2015 and up to 2020 (concerning ROSATOM State Corporation)	13,076.8	10,601.9	-	2,474.9	99.8	99.7*	-	100.2
Ensuring nuclear radiation safety in 2008 and up to 2015 (concerning ROSATOM State Corporation)	16,350.8	14,206.1	135.6	2,009.1	101.3	100.0	100.0	111.2

* cost-cutting due to tendering

MANAGEMENT OF GOVERNMENT ASSETS

In its role as a manager of government assets, ROSATOM State Corporation conducted monitoring of Federal Government property entitlements in respect of federal state unitary enterprises (SUEs), and regulated questions of land usage and ownership.

During 2012 government ownership titles were registered for 151 asset items, which makes up 97.75% of the total.

ENSURING PROTECTION OF CLASSIFIED INFORMATIONS

As part of its government-assigned function to ensure the protection of classified government information, as well as to prevent unauthorized access to nuclear power sites, in 2012 the Corporation carried out work in safe functioning of nuclear industry facilities and companies.

Audits by relevant supervisors during the reporting period found no instances

of non-compliance. In 2012, three inter-departmental and four departmental audits were conducted to assess the efficiency of countering technical intelligence and technical information protection. No leakage of classified government information was detected.

4.1.2. NUCLEAR WEAPONS COMPLEX



Ivan Kamenskikh, First Deputy CEO, Head of the Directorate for the Nuclear Weapons Complex

What are the main results of NAC in 2012?

As always, in 2012, government defense contracts were 100% fulfilled. The main role of NAC was achieved, namely the maintenance and development of a nuclear arsenal on a level ensuring the implementation of state policy in the field of nuclear deterrence.

The total volume of income received by NAC companies for the 2010–2012 period increased by 33%. The volume of taxes transferred to all budget levels by NAC companies for the same period increased by 22%.

A project on the concept of conversion and program development was initiated. Its goal is to find solutions for the effective usage on civil markets of competencies, technologies and manufacturing facilities that were previously involved only in military production. The following results were achieved during the

project realization: the identification of companies to implement the project as well as quantifiable indicators of project efficiency (particularly, annual growth of production volumes by 16%), the analysis of NAC companies' technological potential and the specification of NAC companies conversion models (the development of competency centers to enter internal and external technological chains is emphasized).

In 2012, the Corporation participated in a the federal law project "On amending the Federal Law "On State Atomic Energy Corporation ROSATOM and some legislation acts of the Russian Federation". Federal Law No. 188 came into force in July 2013. This law establishes the status of "federal nuclear organization" that will be assigned to federal state unitary enterprises of the Corporation forming nuclear weapons complex of the Russian Federation. The "Federal nuclear organization" title assumes the necessity to restructure NAC organizations.

One of the results of restructuring will be the provision of enterprises with highly qualified personnel as well as the arrangement of conditions for the preservation of professionals possessing critical knowledge and technologies that ensure an appropriate salary level, living conditions, social benefits and the development of infrastructure. The optimization of personnel in NAC enterprises and the conversion of extra civil production facilities will certainly be conducted with a view to the maintenance and support of basic and developing critical nuclear arms technologies, as well as the creation of progressive scientific and technological advances in the prospective Russian nuclear military armory.

Which projects in the civil sphere are being implemented by NAC? Are there any innovative projects?

Nuclear Weapons Complex includes 17 main enterprises, including industrial companies and scientific institutes.

An audit of technological competencies conducted in the latter part of the reporting year showed that our enterprises possess 25 groups of key competencies, enabling us to develop in 14 markets of civil-used products and in the arms and military equipment market, as well as within the strategic direction of developing radiation medicine and isotope products. After detailed analysis of the results, we have identified the six most promising markets. This includes the market for lasers, security and inspection systems, automatic process control systems and measuring techniques, high performance computing, electrical engineering and robotics.

Now we need to determine the most promising technological competencies and create new organizational structures that will be based on them and be able to succeed in an open environment. Competency centers will function as strategic institutes of civil production facilities in NAC and will be included in the process of resource allocation between different spheres of civil-used output development.

Moreover, within the implementation of the Presidential project "Development of transportation power modules based on the megawatt-class nuclear propulsion unit", ROSATOM State Corporation is creating an innovative space reactor unit that will allow the cost of nuclear units to be 3 times lower than the

solar battery alternative, and the cost of insertion in high-energy orbit to be twice cheaper compared with traditional means of insertion.

What problems are most pressing for the development of NAC enterprises and what is being done to eliminate them?

One of the most important tasks of NAC is to increase the output of competitive civil products. This is especially important due to the social and economic development of Closed Administrative Territories while the persisting size of the budget burden (on closed NAC programs) involves the risk of the deterioration of the economic and social situation in NAC cities.

In 2012, NAC's profit from the realization of civil production amounted to 60 bln RUB. It is planned for this to increase 300% by 2017. Meanwhile, there are a number of bottlenecks that limit the potential of NAC to achieve target volumes.

According to our analysis, civil production, though having competitive technical characteristics, is still under-produced and does not provide stable supplies to the open market. Some reasons we can name include a lack of effective market-

ing and technological policies, insufficient sales procedure and intragroup competition. These challenges will be solved by industry competency centers.

The other problem is staff related. We are always working with our employees, which includes the recruiting of alumni from the leading universities of the country and the support of young specialists: accommodation, the issuing of interest-free loans for private property purchases, awarding of bonuses, etc. Over the past four years the amount of alumni attracted to NAC enterprises has increased by 3% annually and reached 12%.

What are the plans for the civil development of NAC for 2013 and the mid-term?

In 2013, we will have to solve tasks related to:

- the preservation and development of scientific and production competencies, as well as the potential of NAC enterprises,
- increasing the level of technological and economic integration of NAC enterprises — internally and with civil industry companies; widening collaborative efforts with non-industry enterprises,
- the development of stable off-budget investment sources into NAC enterprises,

- creating up-to-date mechanisms of civil manufacturing products.

Taking into account the fact that the procedure for developing new production facilities of NAC enterprises (financed by private capital) is currently inapplicable, the development of territorial clusters and technology parks is predicted to be an effective mechanism of public private partnership within the scope of the necessary infrastructure to deliver prospective technologies and projects from organizations to business structures. One example of such collaboration is the technology park "Sarov". The plan is to implement a number of innovative projects there:

- a national laser center producing diode lasers,
- a hardware-software complex for simulation modeling of different physical processes (on behalf of OJSC "RZD"),
- the construction of 5 kW fuel cells (on behalf of OJSC "Gazprom"),
- the production of supercomputers of different efficiency levels equipped with local system and applied software,
- the rendering of services of simulation modeling.

RESULTS IN 2012

Implementation of the government defense contract

In its government-assigned function to control national reserves of special and fissionable materials, the Corporation has accomplished all activities to do with the maintenance, servicing, and restocking of the national reserves of special and fissionable materials, in compliance with the rules of confidential information protection, the protection of classified information, the physical protection of nuclear materials, and nuclear, radiation, engineering, and fire safety. 11 audits were carried out to inspect nuclear materials accounting and control systems at industry enterprises, and no compliance failures were identified.

ROSATOM State Corporation, together with the Ministry of Defense of the Russian Federation and nuclear procurement military units of the National Defense Forces of the Russian Federation, accomplishes all activities for supporting and developing the reserve arsenal of the Russian National Defense Forces to an appropriate quality and quantitative level that is necessary in order to ensure the realization of the Russian nuclear containment policy.

In 2012, ROSATOM companies conducted research and development activities in accordance with the Government ammunition program for 2011–2020.

Plans on the development and production of military reserve ammunition assigned by the government defense contract were fully fulfilled.

NAC Restructuring

Within the restructuring of the Nuclear Defense Complex that is being conducted in accordance with NAC development strategy of ROSATOM State Corporation up to 2020, target indicators describing the current situation of NAC companies were fully complied with.

The production volumes of civil products are increasing: in 2012, the volume of NAC produced goods grew by 17%.

In 2012, production facilities were reduced on average by 8.2%, the number of employees involved in the implementation of GDC was cut by 6.5%, while employee paychecks increased by ~11 %.

In 2012, the Directorate for NAC created a project office "The development of the output of civil products" and initiated a project on "Working out the development concept of enterprises based on NAC products and the technological competencies of ROSATOM State Corporation aimed at the development of conversion programs for NAC companies up to 2018 and further up to 2023". The main goal of the project is to find effective civil areas for the facilities and staff previously involved in the implementation of GDC.

Activities aimed at increasing the efficiency of NAC companies

For the purpose of improving the NAC management system, a plan and KPI system for the complex evaluation and monitoring of the progress of development of NAC companies was initiated. The structure of the KPI system includes economic, production and technological, human resources and financial indicators, as well as indicators of innovative activity, production and management efficiency (totally 53 indicators). In order to increase the production efficiency of NAC companies we use the principles and tools of the ROSATOM Production system.

The results of the complex evaluation of NAC companies' development progress showed that all enterprises of ROSATOM State Corporation Nuclear Defense Complex are financially-stable and are developing in an upward trend.

A project started in 2012 on "The optimization of complex production of nuclear industry companies", the goal of which is to improve the production and technological base. Programs to improve the efficiency of production of companies and NAC generally were developed and accepted for execution.

In 2012, we assembled an NAC team for the implementation of SDP (the strategic development program) and for project management that includes more than 50 SDP leaders and 10 certified SDP-trainers. More than 900 modifications were implemented, while their authors received more than 1.2 mln RUB.

Moreover, in the reporting period, NAC companies achieved project goals (54 projects), as well as pilot and model area KPIs. The economic effect from the realization of these projects amounted to more than 152 mln RUB. Production facilities (10.2 thous. m²) and warehouse premises (6.5 km²) were reduced.

The results of ensuring nuclear and radiation safety

During 2012, NAC companies carried out scheduled work on equipping their facilities with up-to-date fire alarms and firefighting systems, increasing safety measures on fissionable and radioactive materials storage, on the construction of advanced disposal facilities and improving the systems for the handling of wastes from toxic production.

Following the enactment of the federal Law "On handling radioactive wastes and on amending certain legislative acts of the Russian Federation", action plans on the implementation of federal law statements and forecasts on RW generation for 2012 and 2013–2025 were developed.

No deviations in the operating results of nuclear facilities of NAC companies that are classified above 0 level on the International nuclear events scale (INES) were observed in 2012.

PLANS FOR 2013 AND THE MID-TERM PERIOD

The 2013 plans include to:

- carry out 100% of tasks assigned under the government defense contract;
- develop a regulatory base for restructuring NAC companies;
- develop an experimental and testing, computing, production and technological base in order to reach a whole new level pursuant to the terms of the Contract on the total restriction of nuclear testing in order to ensure a competitive position with regard to leading nuclear countries;
- increase output volumes of all-purpose products by NAC companies;
- develop local strategic NAC companies for handling RW and conduct consignment research of RW storage facilities necessary for the realization of primary registration;
- approve a program for interaction between ROSATOM and the Federal Space Agency in order to support innovative industrial development.

4.1.3. ATOMIC ICEBREAKER FLEET

RESULTS IN 2012

Ensuring cargo traffic via North Sea Route (NSR)

In the reporting period, 296 escort missions were carried out by atomic icebreakers. During the summer-autumn navigation period of 2012, 46 transit

pilot voyages, incl. 28 foreign vessels, were carried out. In the same period in 2011 34 pilot voyages were made (15 of them were foreign-flag vessels), and in 2010 – only 4 pilot voyages. The total volume of all types of cargo transferred via the North Sea Route in 2012 amounts to 1261 thous. t. The volume of transit cargo traffic in 2012 compared to 2011 increased by 53.7%. One of the most prominent peculiarities of the reporting period is caravan pilot voyages (no single voyages were accomplished).

In 2012, an expeditionary voyage was made — the high-latitude expedition "Arktika-2012" by the Arctic and Antarctic Research Institute (AARI) the Federal Service for Hydrometeorology and Environmental Monitoring – that allowed the removal of "North Pole-39", the research and development floating station, and the organization of a new station called "North Pole-40".

 For details see the e-version of the Annual Report

Innovative developments of the enterprise

In 2012, Atomflot State Unitary Enterprise carried out technical work using up-to-date technologies and innovations, including:

- mastering the technology of the fixing screw and steering complex of the atomic icebreakers of 10521 type and 10580 type;
- mastering the technology and cropping of templates from equipment dismantled from the icebreaker "Arktika" in order to expand the resource and



The reporting year saw the start of construction of a new leading all-purpose atomic icebreaker. In accordance with the Decree of the Russian Government, ROSATOM State Corporation made a call for open tender for the construction of a leading all-purpose atomic icebreaker of 22220 type out to open tender; the tender was won by LLC Baltiyskiy Zavod-Sudostroyeniye (the contract value awarding 36 bln RUB). Overall, the Corporation plans to build three new-generation atomic icebreakers.

service life of the nuclear icebreaker's reactor units (RU);

- the installation of a "Control system of the capabilities of watchman assistants" on six vessels (according to IMO Convention requirements);
- the development of a transport monitoring system for ensuring the on-line control, monitoring and effective management of any type of vehicle of the enterprise;
- the implementation of the first stages of ROSATOM Production systems in two projects: "Repair of the pulling device on the sheer line of the atomic icebreaker of 10521 type" and "Repair of the main turbine unit GTA-642", which resulted in a reduction of the repair period by 10 calendar days.

 For details see the e-version of the Annual Report

Results in ensuring nuclear and radiation safety

Atomflot State Unitary Enterprise participates in the implementation of eight international projects related to the improvement of physical protection systems of nuclear vessels and onshore facilities, as well as the increase of nuclear and radiation safety levels while handling radioactive wastes and wasted nuclear fuel. During the reporting period, Atomflot State Unitary Enterprise took part in the implementation of a Russian project on the installation of a control system of the enterprises water area.

PLANS FOR 2013 AND THE MID-TERM PERIOD

- to define sources of funding for the construction of two serial all-purpose atomic icebreakers to 2020,
- to determine sources of funding for new depot ships and 60 thousand floating dock,

- to complete the development of the utilization project of "Arktika" type icebreakers, and in 2014 to start the utilization process of vessels withdrawn from service and equipped with nuclear power units,
- to support at least four operating atomic icebreakers,
- to implement a program extending the operating capacity of atomic shallow-draft icebreakers for up to 175-200,000 hours,
- to complete the construction of a major next-generation all-purpose atomic icebreaker by 2017.

4.2. Strengthening the Innovative Development of Russian Nuclear Technologies and Expanding their Application



Vyacheslav Pershukov,
Deputy CEO, Director
of the Innovation
management unit

What were the results of innovative activity of the Corporation in 2012? What was achieved in terms of becoming a global technological leader?

The achievement of ROSATOM's goal to become a global technological company was only able to be achieved through the

realization of a whole complex of financial and ideological tasks. First of all, we need to teach our engineers and technical staff of our production companies to act as though they were the customers of innovative products. For this purpose we conducted a special management course together with the Skolkovo business school. More than 50 specialists from our enterprises all over the country where the Corporation is represented completed this training.

For the first time in the history of nuclear power, official delegations of the US Department of Nuclear Power and Commissariat de l'Energie Atomique in France visited our research centers in 2012. The number of international contracts has increased and international projects such as MBIR, a research center in Vietnam, and a new thermonuclear project together with Rosnano in USA, were initiated.

The role of scientific and technical boards as expert-advisory bodies is growing, as

only scientific experts can evaluate the potential of breakthrough research and technological solutions.

Over the past few years, many organizational restructuring projects have been implemented in the industry. Did you manage to achieve the target goals?

The transformation process is not complete yet. Today due to the development of the management company "Science and innovation", we have managed to consolidate operations of scientific units in most directions; this company ensures the financial and economic activities of enterprises, manages the infrastructure and experimental base, conducts technological marketing and performs the licensing of technology. In a number of institutes, we have changed the management board, though we have not parted with our colleagues and provided them with jobs where they would be able to operate more efficiently and demonstrate the kind of creativity that is so common to scientists. We have also strengthened

the scientific management stream — for the positions of research advisors (electrophysical, physics and energetics, chemistry and technological blocks), we appointed well-known scientists who see tasks and problems as a single package and have the appropriate skills to ensure the necessary coordination between industrial institutes, academic sector and state authorities.

What are the main challenges of scientific enterprises in the industry? How are they solved?

The main problem, was the case the year before, is staff-related. In 2012, we performed a number of activities in order to preserve and develop scientific potential. The remuneration package of scientists has changed, which has resulted in a dramatic growth of salaries in the scientific area. A program for supporting young scientists was implemented. We initiated a succession pool program for young candidates of science.

Last year we started a project called “Development of a basic and applied research centre” the goal of which is to attract talented young people into sci-

ence and innovation spheres, train highly-professional specialists in the field of pure and applied physics, evolve scientific and technological competencies among the employees of the Corporation.

What scientific projects are considered a top-priority and as being most important for the coming years?

All scientific projects that we are implementing are defined in Federal target programs. First of all, there is the transfer to a new technological platform of nuclear power, which means the closure of the burn-out cycle with the use of fourth-generation fast-neutron reactors. This is the well-known “Breakthrough” project.

Another significant project is devoted to the development of innovative products and technologies of non-energetic appliances, especially in nuclear medicine. We face the challenge of renovating rare-earth industry via cooperation and public private partnership, developing superconducting manufacturing, which means mastering of the production output technology of second-generation high-temperature conductors and derivative goods. ROSATOM is very serious about the

development of the new business directions, and the role of scientific and technological block this challenge is crucial with.

Mention should be made of serious progress in the field of computing techniques and the production of supercomputers. We can continue in a similar vein but it is more important to mention that the total volume of investments of ROSATOM State Corporation in R&D amounts to approximately 1 bln USD.

How is the problem of improving efficiency and payback of investments in science being solved?

The efficiency of investments can be easily measured and is represented in the commercialization of results from intellectual activity, e.g. the number of licensed agreements and patents. For this purpose, we have developed identification, selection, protection, and further commercialization systems. All of these activities are a part of the Knowledge management system.

4.2.1. TECHNOLOGICAL LEADERSHIP

Main results of R&D and innovative activity

Indicator	2012	2011	2010
Share of innovative products in revenue, %	10.4	9.1	6.8
R&D costs, bln RUB [% from revenue]	22.7 (4.8)	21.4 (3.7)	14.01 (3.5)
Average age of scientists	48.7	49.8	51
Average salary across the scientific block	36.5	30.9	23.2

PROGRAM OF INNOVATIVE DEVELOPMENT AND TECHNOLOGICAL MODERNIZATION

On April 11, 2011, the Supervisory Council of ROSATOM State Corporation approved a program for innovative development and technological modernization for the period up to 2020. This program is aimed at the gaining of global technological leadership.

The program is targeted at the achievement of ROSATOM State Corporation’s most important goal i.g. ensuring the innovative development of the nuclear industry via the development of scientific and technological potential and

expansion of areas of application of nuclear technologies in different economic spheres in Russia and abroad.

The program involves the following three directions of innovative development:

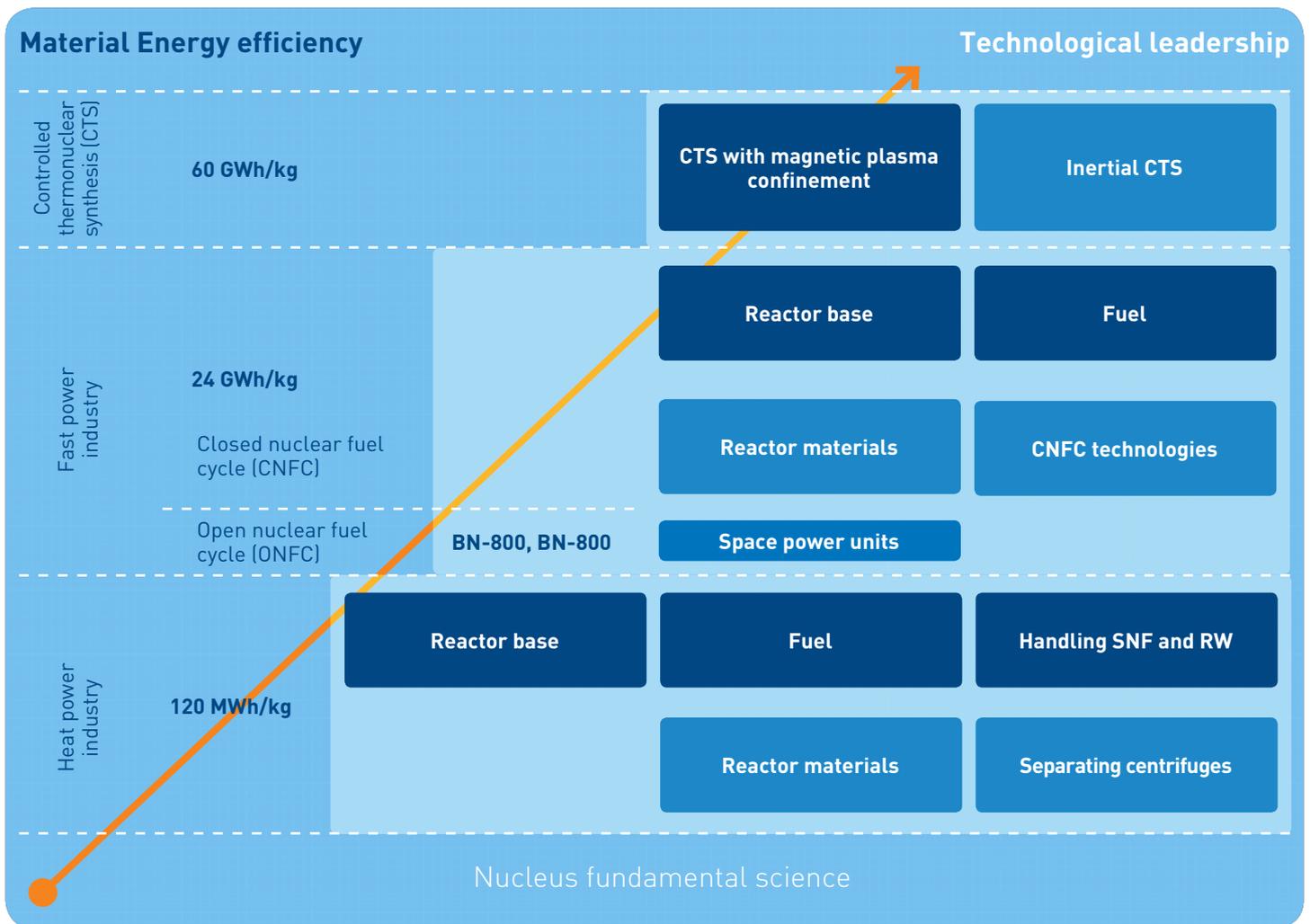
- the modernization of existing technologies,
- the development of new technologies for power markets,

- the expansion of the range of areas of application of nuclear technologies beyond the nuclear industry•.

New initiatives within the Program include complex projects on the development of innovative infrastructure (experimental base and intellectual property) and interaction with universities on preparing specialists and performing R&D.

The ROSATOM State Corporation program for innovative development took first place in the rating of innovative programs according to the rating agency “Expert-RA”.

Nuclear power. Map of innovative projects.



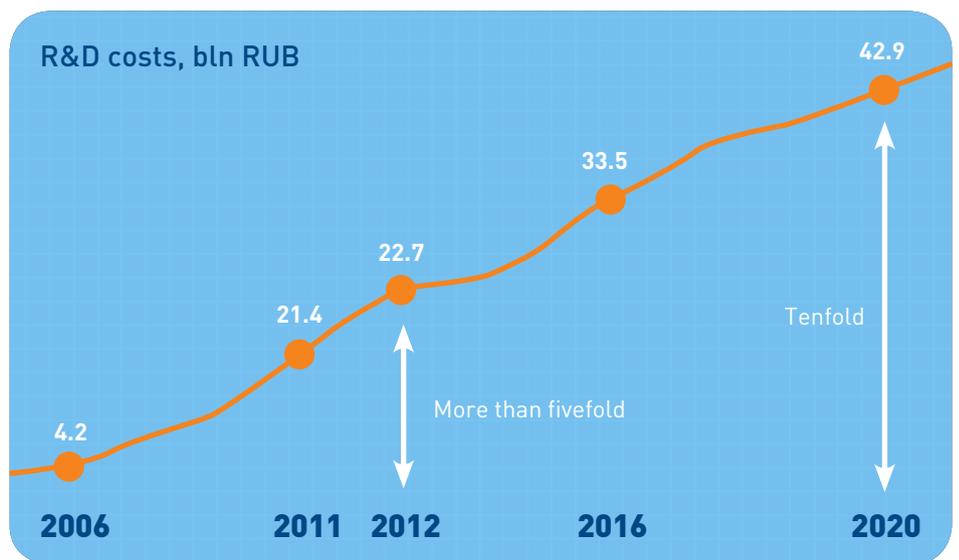
KPIs OF INNOVATIVE DEVELOPMENT PROGRAM

Investments in R&D

In implementing the policy of regular innovation funding, the Corporation became one of the leaders among international companies regarding the proportion of expenses for R&D. In accordance with the Innovative development Program the level of investments in R&D is set at 4.5% level annually. In 2012, R&D costs (22.7 bln RUB) exceeded expenses of 2006 more than four times and will continue to grow alongside increases in revenue.

Staff management

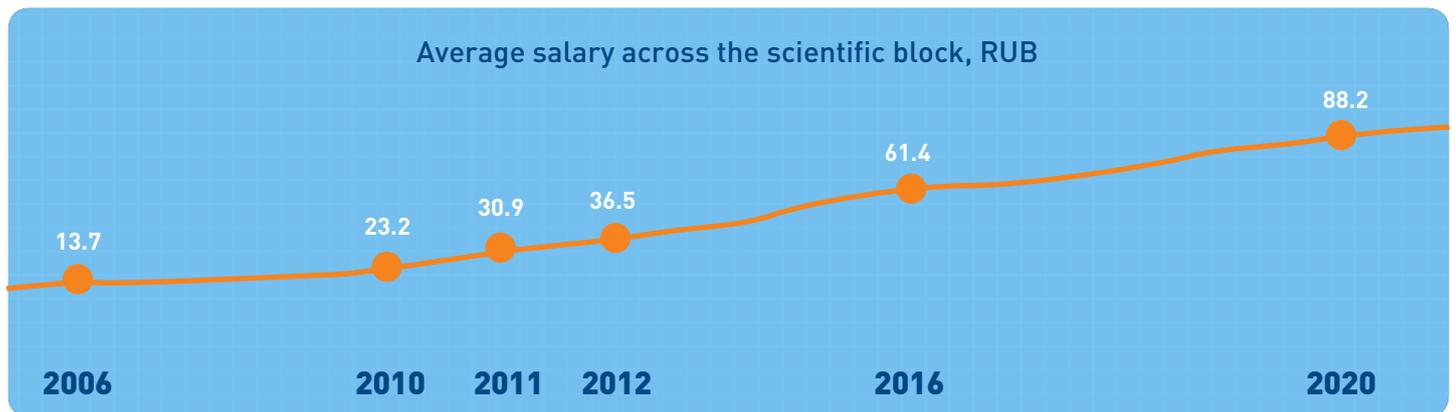
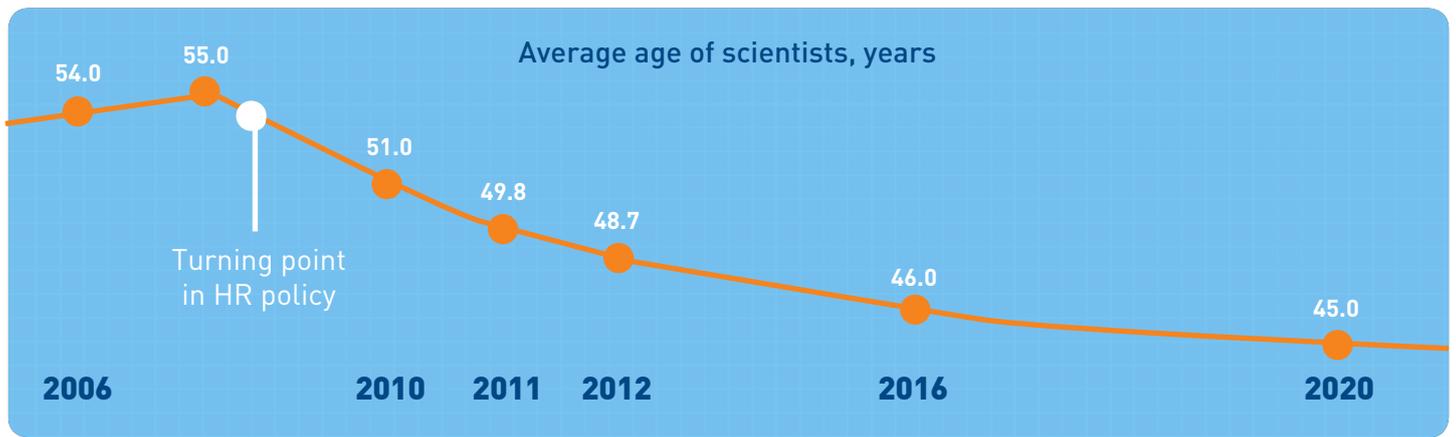
Scientific organizations strive to attract young specialists with measures including the development of motivation programs, collaboration with banks to provide young employees with affordable mortgage loans against personal guarantees, etc. Accord-



ing to the target for staff rejuvenation, by 2020, the average age of scientific personnel should not exceed 45 years.

An increase in the salaries of scientific employees is taking place. Funding

growth (adjusting the level of salaries in accordance with the salaries in production companies) is one of the incentives for employees' productivity growth.



4.2.2. DEVELOPMENT OF THE SCIENTIFIC INFRASTRUCTURE

The development of the experimental base of the scientific and technological complex is performed in accordance with the Program of Innovative development and technological modernization of ROSATOM State Corporation up to 2020.

The objectives of modernization are to:

- ensure that equipment and functionality meet the latest standards for experimental research, ensuring the efficiency of priority science and engineering R&D at ROSATOM and throughout the Russian nuclear industry;
- increase safety levels at experimental facilities regarding the latest requirements for nuclear and radiation safety,
- increase the efficiency of production of the experimental base within the programs of developing next-generation innovative nuclear reactors.

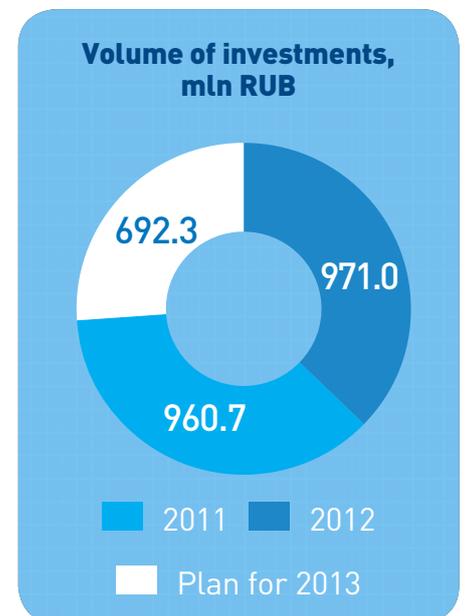
DEVELOPMENT OF THE EXPERIMENTAL BASE

Investments in infrastructure facilities of the scientific and technological complex allocated within the FTP "Next-generation nuclear power technologies for 2010–2015 and up to 2020" in 2012 amounted to 960.7 mln RUB (in 2011 same investments totaled 1,238.4 mln RUB).

In 2012, there was activity aimed to ensure the safety of nuclear research reactors and the modernization of experimental bench-top complexes. The main outcomes include a significant technical re-equipment of the scientific and technical complex, as well as the modernization and development of the research and experimental base of radiotechnologies. Many activities were performed in order to upgrade the material base and thermonuclear complex.

Within the project "Ensuring the safety level and modernization of the experimental base", there was the upgrade of three experimental stands and 14 test complexes equipped with modern research devices. Work to improve the safety of experimental facilities and upgrading test benches will continue in 2013.

The project "Increasing the safety level and modernization of the experimental base" does not include activities on the upgrade and development of the R&D base of nuclear power technologies in the reporting period, as well as the reconstruction and modernization of facilities of the experimental base of the nuclear power industry.



For details see the e-version of the Annual Report

4.2.3. PARTICIPATION IN THE REALIZATION OF INTERNATIONAL PROJECTS

PROJECT FOR CREATION OF AN INTERNATIONAL THERMONUCLEAR EXPERIMENTAL REACTOR (ITER PROJECT)

Results in 2012

- the release of the first four superconducting cables of poloidal field coils and the first two conductors of toroidal field coils from the OJSC Design Institute for the Cable Industry;
- the conduction on the IDTF bench of first testings of Japanese-made diverter targets;
- in the Russian Institute for applied Physics: the production of upgraded units and parts for the prototype model of "Vezuviy-12" ITER gyrotron; assembly, pumping out and experimental testing of the ITER gygotron prototype model that meets all the requirements of ITER International organization.

FACILITY FOR ION AND ANTI-PROTON RESEARCH IN EUROPE (FAIR)

Results in 2012

- the development of FAIR scientific and technical committee,
- supported by ROSATOM State Corporation, FAIR Board adopted a decision to sign contracts with Russian companies worth ~60 mln Euro;
- within the expenses of the project, training conduction for 40 specialists in the field of scientific research management; exchange of research personnel and young specialists; exchange of science and engineering information; production (supported by the Ger-

Participation of ROSATOM State Corporation in the realization of international projects ITER and FAIR

	ITER	FAIR
Duration	2007–2020	2011–2019
Participants, number of countries	7	9
Specialists from RF, %	6	4
Contribution of the RF in project budget, %	9.5	17.5
Project cost, bln EUR	15.0	1.1

man side) of a level-1 super-computer center as the main Russian node in the FAIR network.

COOPERATION WITH THE USA TO CONVERT RUSSIAN EXPERIMENTAL REACTORS

In 2012, there was the first stage, as defined in the Executive Agreement between ROSATOM State Corporation and the US Department of Nuclear Power, on cooperation in research to examine the possible conversion of Russian experimental reactors dated 07.12.2010 (Agreement). The results obtained will be used in the next stage of converting experimental reactors from highly enriched to low enriched uranium fuel.

 For details see the e-version of the Annual Report

GENERATION IV INTERNATIONAL FORUM

After signing the Project Convention (PC) on the safety and operation of fast

neutron reactor (FNR) dated 12.11.2012, ROSATOM State Corporation gained the opportunity to participate in the PC of Generation IV International Forum on system integration and FNR evaluation for the purpose of promoting and advertising the BN-1200 concept on the international level. Moreover, we received access to the materials released within this PC (approximately 100 reports) and to the reports that will be published in the future (including access to the database of experimental results of FNR emergencies conducted on the American reactor TREAT).

Plans for 2013 include

- signing a PC on the upgrade of FNR fuel,
- signing a PC on equipment projects and energy conversion unit for FNR,
- nominating Russian representatives for the consultancy group of management advisors from the industry (SIAP).

4.2.4. RESULTS OF INNOVATIVE ACTIVITY

THE BREAKTHROUGH PROJECT

The Breakthrough Project assimilates technologies of fast-reactor and closed nuclear fuel-cycle (CNFC), that meet the requirements of "natural safety" (in nuclear, ecological and political spheres), and resource availability.

The closed nuclear fuel-cycle is aimed to ensure a balance between radioactivity of natural materials used in nuclear indus-

try and radioactivity of materials used up and put back into nature. Previously, open nuclear fuel materials required 220,000 years to achieve background radioactivity.

Technologies used for fast reactors (FR) allow the acceleration of this process via exploitation of the energy potential of extracted raw materials. The radioactivity of wastes remaining after operating

FR achieves a natural background within 150–300 years.

For the lead-cooled fast reactors being developed, the radioactivity emissions requiring the evacuation of the population are exceptional, even in the case of NPP systems rejections, human errors and external effects.

As a result of the Breakthrough project, there a nuclear power complex will be created, which is a part of a power unit with a BREST-OD-300 reactor (fast-neutron reactor with a lead moderator), a refinery module of wasted nuclear fuel of fast-neutron reactors, facilities to regenerate and refabricate solid commixed uranium-plutonium fuel for fast-neutron reactors.

Also as part of the Breakthrough project, the pilot project of an industrial power complex with a 1,200 mW fast-neutron reactor and nuclear cycle will be developed by 2020.

Results in 2012

- the approval of technical specifications and the R&D program,
- the completion of main scientific and research activities on project reasoning,
- the identification of a site for testing complex construction (OJSC "Siberian Chemical Plant"),
- the consolidation of resources (groups of scientists and designers).

Modernization of the experimental base for the implementation of the Breakthrough project

In OJSC SRC NIAR there was an upgrade of the complex of hot cells K-16 and K-09 for operating with intensity below 100,000 curie on Cs-137 with the air atmosphere. The goal of modernization was to ensure the possibility of allocating testing equipment for refining solid opened nuclear fuel — which is a prototype of modules of industrial equipment for refining open nuclear fuel of fast-neutron reactors.

PROJECT "DEVELOPMENT OF AN ALL-PURPOSE FAST-NEUTRON EXPERIMENTAL REACTOR" (MBIR)

The MBIR reactor is a new-generation 150 mW reactor is meant to replace the BOR-60 reactor after its total shut-down in 2020.

Results in 2012

- the approval of technical specifications for designing the "Construction of an all-purpose fast-neutron experimental reactor MBIR";

- conducting radiological explorations and engineering works on the MBIR research nuclear unit, documentation necessary for the development of the project, the initiation of project activities;
- the approval of technical specifications for developing the MBIR research nuclear unit, the completion of R&D for researching technical decisions agreed;
- holding of public debates on the materials reasoning license on allocating the MBIR research nuclear unit, the materials sent to the Federal Service for Environmental Supervision for conducting State Environmental Expertise.

The MBIR project plan for 2013 foresees the continuation of R&D for researching technical decisions agreed, obtaining of a license on allocating the MBIR research nuclear unit, the release of the MBIR technical project and the project documentation of the MBIR research nuclear unit within the scope necessary, obtaining of a construction license and the selection of single-source equipment supplier.

4.2.5. ACTIVITIES WITH THE FRAMEWORK OF THE RUSSIAN PRESIDENTIAL COMMISSION FOR UPGRADE AND TECHNOLOGICAL DEVELOPMENT IN RUSSIA

ROSATOM State Corporation is the contractor responsible for three and associate contractor for four projects approved by the Russian Presidential Commission for upgrade and technological development in Russia:

Within the framework of the top-priority area "Nuclear technologies":

Creating a standardised project for an optimized I.T.-enabled power unit base using VVER technology

New technology platform: closed nuclear fuel cycle, and fast- neutron reactors

Controlled thermonuclear synthesis

Within the framework of the top-priority area "Strategic computer technologies and software":

Development of supercomputers and grid technologies

Within the framework of the top-priority area "Space and telecommunications":

Creating a propulsion power unit based on a megawatt-class nuclear energy source

Within the framework of the top-priority area "Medical equipment and pharmaceuticals":

Organization of the manufacturing of new radiopharmaceutical products and medical devices and development of a services network on delivering highly-technological medical help

Within the framework of the top-priority area "Energy efficiency and energy savings":

Innovative power generation

Project "Creating a standardised project for optimised and IT-based VVER technology" (VVER Upgrade)

The WER upgrade project is a typical project of NPP with an optimised and IT-based high-capacity energy unit based on VVER technology implemented as the short-term development priority of nuclear technologies in accordance with the decision of the Russian Presidential Commis-

sion on the modernization and technological development of the Russian economy.

This is a commercial project funding the upgrade of NPP facility management in Russia and aimed to ensure the competitiveness of Russian export offers abroad.

This project can successfully compete on the international market due to the following factors: developers managed to achieve a reduction in construction costs by ~10 %, and the duration of construction work on the main energy unit was reduced from 60 to 48 months.

Results in 2012 (the project was completed in 2012)

- the development of a VVER upgrade Project competency center,
- the development of an information environment for constructing, designing and modeling NPP's energy units,
- the implementation of the NPP's energy unit lifecycle management system,
- the creation of a single Design-center of VVER technology, assimilating the competencies of designing, constructing and measuring the security of NPP energy units based on VVER technology;
- the development of a VVER energy unit project and construction documentation (3D- and 6D-project), performed in a new

Financing of the project, mln RUB

	Federal budget funds	Off-budget sources	Total
2012	—	3,177.8	3,177.8
2011	—	4,158.5	4,158.5
2010	—	2,047.7	2,047.7

- information environment; the preparation of documents for licensing, certification and participation in international tenders;
- the revision of the regulatory and legal framework concerning eliminating old statements hindering development in

order to ensure the possibility of using new technologies for design and construction.

The level of project completion as of December 31, 2012, was 100%.

The project “New technology platform: closed nuclear fuel cycle and fast-neutron reactors” (NTP)

The NTP project is focused on the creation of a new technological platform of nuclear power based on a closed nuclear fuel cycle with fast-neutron reactor units. Within this project's technologies of the closed fuel cycle, technical projects of competitive new-generation fast reactors ensuring a non-proliferation regime and the ecological suitability of nuclear power are under development.

Results in 2012 (the project was completed in 2012)

- commissioning of the experimental production of pins and gags of mixed oxide fuel using vibration technology on OJSC SRC NIIAR,
- the development of technical materials for the reactor unit BREST-OD-300 project,
- the development of a first version of reference system to ensure priority safety objectives justifying the analysis of fast reactors being developed,
- the preparation of a pilot project of the active zone of the BN-1200 nitride fuel reactor,
- the creation of a complex project on handling the fallouts and separation of salt boules of polyfunctional radiochemical complex,
- the creation of a laboratory demonstrating the handling process with radioactive wastes resulting from refining nuclear fuel wasted from fast reactors.

Project activities are a part of the FTP “New generation nuclear power technologies for 2010-2015 and up to 2020”, which defines the further development of the closed nuclear fuel cycle and the development of fast neutron reactors.

Financing of the project, mln RUB

	Federal budget funds	Off-budget sources	Total
2012	10,177.4	2,469.2	12,646.6
2011	5,714.5	920.7*	6,635.2
2010	3,170.0	1,407.9*	4,577.9

* The NTP is financed from the budget of the federal target program, “Next-generation nuclear power technologies for 2010–2015 and up to 2020”. ROSATOM allocated 50 mln RUB annually in 2010–2011 to create an infrastructure and a management system for the project.

The targets for 2012 were fully achieved. Progress in the project to create fast-neutron reactors (extent of project completion) was 5% as of December 31, 2010, and 10% by December 31, 2011; progress with fuel cycle closure was 5% as of December 31, 2010, 10% by December 31, 2011 and 15% by December 31, 2012.



Controlled thermonuclear synthesis (CTS) project

In accordance with the 2030 Federal Energy Strategy, the Russian power engineering industry should work to increase the proportion of environmentally-friendly power generation using renewable (unlimited) resources. Controlled thermonuclear synthesis represents one such method of power generation.

The main objective of the project is to control the energy of thermonuclear synthesis as a generating platform for the power industry in the long-term.

CTS project implementation included the development of technological systems, an innovative thermonuclear system and technical modernization of the experimental base within the realization of activities in three directions: the creation of a project management infrastructure, the development of a basis for the Russian thermonuclear power industry and the implementation of the ITER reactor international project.

Results in 2012 (the project was completed in 2012)

- the development of plasma research and energy transformation The center infrastructure on the basis of FSUE RF SRC TRINITI, equipped with 10-teraflop super-computers and modern scientific equipment (the FSUE RF SRC TRINITI technological platform coordinator, was awarded the Certificate of Honor by the Russian fund of technological development at the "Open innovations" Forum);
- the development of technological systems, innovative thermonuclear technologies and conducting of technical modernization of the experimental base; the introduction of a gyrotron complex on tokamak T-10 unit (NRC Kurchatov Institute), enabling the obtaining of plasma regimes with a high proportion of non-induced current.

Project "Development of super-computers and grid technologies"

The project is intended as a contribution to the development of the Russian super-computer and super-computation sector.

Results in 2012 (the project was completed in 2012)

- Target goals were fulfilled (of 980 mln RUB planned from off-budget sources, 981 mln RUB attracted). In December 2012 acceptance tests of R&D results were conducted by the Interdepartmental Commission;

Financing of the project, mln RUB

	Federal budget funds	Off-budget sources	Total
2012	6,688.3	105.0	6,793.3
2011	5,395.8	49.5	5,445.3
2010	4,601.1	49.5	4,650.6

Tokamak T-11M (FSUE RF SRC TRINITI) was used to test the prototype of a stationary lithium limiter, being a prototype of a quasi-stationary diverter of future thermonuclear reactors (vertical option);

- the working out a design project of a neutron thermonuclear source, realizing the synthesis reaction of deuterium and tritium a tokamak thermonuclear unit and identifying its main technical and economic indices;
- the development of project documents on engineering and technological systems for the purpose of re-equipping the T-15 tokamak unit (the NRC Kurchatov Institute), the creation and testing of the experimental sample of STIS-1 stationary ion source for the plasma heating system;
- the implementation of the ITER international project included the manufacturing of superconductor strands (OJSC TVEL, the OJSC Chepetsk Mechanical Plant, the OJSC High Technology Research Institute of Inorganic Materials), cables and superconductors for the ITER magnetic system (R&D and the Design Institute for the Cable Industry), development and testing of technologies for ITER reactor's system as part of the Russia's obligations on the ITER project (the FSUE Research Institute of Electro-physical Instrumentation, the OJSC Research and Development Institute of

Power Engineering, the Institute of Applied Physics and the Physical-technical institute of Russian Science Academy, etc.) Mastering of innovative thermonuclear technologies has allowed Russia to be among the first country-participants to supply equipment to the ITER International organization.

In 2012, work on the development of technologies and manufacturing of superconductors for prospective spheres of science and technology were awarded a prize by the Russian government.

Plans for 2013 and the mid-term period

The manufacturing of a CTS commercial unit is planned for 2040-2050. In 2013-2015, work on developing the basis of the thermonuclear power industry in Russia will continue within the frameworks of FTP "Nuclear energy technologies of the next generation" and the implementation of ITER project activities. Russia's participation in constructing and testing on the ITER reactor will enable the creation of industrial technologies of mastering thermonuclear synthesis, as well as providing the unique experience of constructing and managing power thermonuclear reactors and the guarantee of education for scientific and engineering staff for future thermonuclear power stations.

Financing of the project, mln RUB

	Federal budget funds	Off-budget sources	Total
2012	1,600.0	981.0	2,581.0
2011	1,824.3	932.0	2,756.3
2010	1,100.0	808.0	1,908.0

- the development and introduction into trial operations of supercomputer modeling technology, which is the basis and crucial requirement for the conversion of industry into new technologies of design, manufacturing and the post-production support of scientific production. The transfer to new technology will ensure:

- the reduction of scientific product design and development period and cost;
- the reduction of expensive field tests (replaced by computer modeling);
- the improvement of safety levels, tactical and technical, as well as the consumption characteristics of developed products, which will

accordingly lead to the growth of a national highly-technological competitive level of output on internal and external markets.

The technology of remote resource-intensive detailed simulation modeling of strategic products on super-computers was developed with the use of national applied and system software.

Plans for 2013 and the mid-term period

The next stage of 2013-2018 is targeted at the industrial introduction of technology for national super-computers for the development, design and production

of strategic products with the further creation of a new industry of super-computers and the commercialization of solutions by 2018.

What has been achieved is the equipping of hi-tech industry companies and enterprises with compact super-computers produced by the Institute of Experimental Physics, as well as the development of the 320 Tflops computing resource of the Institute of Experimental Physics to support remote access, the sum effect of which significantly increases the company's capability to conduct measurements based on simulation modeling.

Project "Development of a transport and generating module using a megawatt-class nuclear propulsion unit"

The Project aims at creating a nuclear propulsion unit for implementing huge programs for exploring space, developing new high-powered space craft, including those for special purposes.

ROSATOM State Corporation's goal is to develop an innovative space nuclear fast-neutron reactor unit with coolant gas.

Results in 2012

- the introduction of technical projects for the component parts of the reactor unit,
- the completion of the first stage of reactor tests on samples of structural materials,
- the development of technical projects on the reactor unit's summer and terrestrial samples.

Financing of the project, mln RUB

	Federal budget funds	Off-budget sources	Total
2012	1,260.0	-	1,260.0
2011	670.0	-	670.0
2010	430.0	-	430.0

Plans for 2013 and the mid-term period

- to prepare documentation of the construction of tvl terrestrial prototype of the reactor's unit,

- to conduct reactor tests of engineering radiation safety materials,
- to develop documentation for the project of the test complex "Resource".

Project "Setting up production facilities for the molybdenum-99 radioisotope"

The Project "Setting up production facilities for the molybdenum-99 radioisotope" is a part of "Production of new radiopharmaceuticals and medical products, the creation of a service network delivering hi-tech medical support, "Medradiopreparat", implemented as part of the modernization course "Medical equipment and pharmaceuticals".

The Project will ensure the supply of molybdenum-99 for the needs of the healthcare sector.

Financing of the project, mln RUB

	Federal budget funds	Off-budget sources	Total
2012	-	-	-
2011	-	283.8	283.8
2010	398.0	246.7	644.7

Results in 2012 (the project was completed in 2012)

OJSC SRC NIIAR specialists completed the installation of key technological equipment, introducing into trial operation the 1st and 2nd production lines

of radionuclide Mo-99. The end product is supplied mainly to Russian customers; test supplies of radionuclide Mo-99 to external markets were initiated.

Project “Innovation in the power/superconductor industry”

The project is aimed at the production of an innovative technical base for the improvement of the efficiency of power in the Russian economy as a result of developing electrical facilities based on new high-temperature superconductors.

The objective is the development of HTSC-2 experimental production.

Results in 2012

- the development of the technology and launch of experimental production of 3-D ceramic samples for manufacturing HTSC materials,
- the production of second generation HTSC ribbon (HTSC-2) and ceramic materials, as well as technology enhancing the production of long (up to ~1 km) iron base-ribbon and the manufacturing of ceramic targets for applying buffer and superconducting lays.

Long HTSC2 conductors are intended for usage by strategic superconducting electrical devices in the power industry, transport, production sector (superconducting cables, short-circuit current limiters for electric grids, a supercon-

Financing of the project, mln RUB*

	Federal budget funds	Off-budget sources	Total
2012	885.0	-	885.0
2011	765.0	-	765.0
2010	765.0	70.00	835.0

* Total financing for the project in 2010–2015 will be 4,730.0 mln RUB, according to the approved project map. Financing is from targeted funds of the federal budget, which are at the disposal of ROSATOM (4,300.0 mln RUB), and from off-budget sources (430.0 mln RUB). Allocation of budget funds for the project is subject to annual approval by the Federal Government.

ductor electric motor, a superconductor generator, a superconductor transformer, and current leads). Ultimately, the superconducting industry will enable a significant economy of power energy, a 1.5–2-fold increase in the operating lifetime, the improvement of the quality of power supplied to customers and the increase of fire safety.

All 2012 targets set were fully achieved. Progress towards manufacturing superconducting products (project completion level) as of December 31, 2012 is 100%.

Plans for 2013 and the mid-term period

The assembly of a complex R&D unit producing long ribbon conductors using laser-beam evaporation method. This line will be installed at the NRC Kurchatov Institute. Competitive industry production will be developed in cooperation with the D. Efremov Research Institute of Electrophysical Instrumentation and realized via OJSC TVEL.

 For details see the e-version of the Annual Report

4.2.6. RADIATION TECHNOLOGIES

APPLICATIONS OF RADIATION TECHNOLOGIES

Applications of radiation technologies

Nuclear medicine

- isotopes and radiation pharmaceutical drugs,
- equipment for radionuclide diagnostics and X-ray therapy,
- engineering,
- medical services.

The environment

- the processing of medical and household solid wastes,
- the processing of smoke fumes,
- the treatment of waste water.

Irradiation centers

- the sterilization of medical tools,
- the modification of polymers,
- disinfectant processing and improvement of seed germination,
- the radisidation, radurization and radappertization* of food staff (conservation).

* The terms radisidation, radurization and radappertization were introduced by IAEA to identify the irradiation treatment of food staff. They differ in radiation dose: Radisidation (4–6 kGy), radurization (6–10 kGy) and radappertization (10–50 kGy).

Radisidation is the irradiation treatment aimed at eliminating microorganisms of any type (e.g. salmonella, trichinella, etc.).

Radurization is the irradiation treatment of catering staff in order to extend the duration of storage in doses leading to the limited elimination of pathogenic (in male) microorganisms.

Radappertization aims at the industrial sterilization of catering staff so as to eliminate the possibility of reinfection.

MAIN RESULTS IN 2012

In 2012, as part of the Program "Radiation technologies" ROSATOM State Corporation completed the stage of business design connected with the implementation of the strategic initiative "Development of a third business core of ROSATOM State Corporation in managing radiation". More than 30 projects worth 25 bln RUB were reviewed. A range of strategic business lines was defined, focused on an international market worth 1,800 bln RUB with the potential to grow four-fold by 2030. The forecaste volume of business development by 2017 will amount to 34.5 bln RUB.

Overseen by "Radiation technologies", business in the field of the distribution of isotope products demonstrates sustainable growth in terms of financial indicators. As a result of the optimization of business processes, in 2012, the indicator of growth of EBITDA of OJSC V/O IZOTOP totaled more than 200% as compared to 2011. Workforce productivity increased by 26%.

Nuclear medicine

- the finalization of a project portfolio with a net budget worth 6.4 bln RUB, the profit forecast for 2017 is 5.5 bln RUB;
- the signing of a protocol of intent with Philips Corp. to establish the pro-

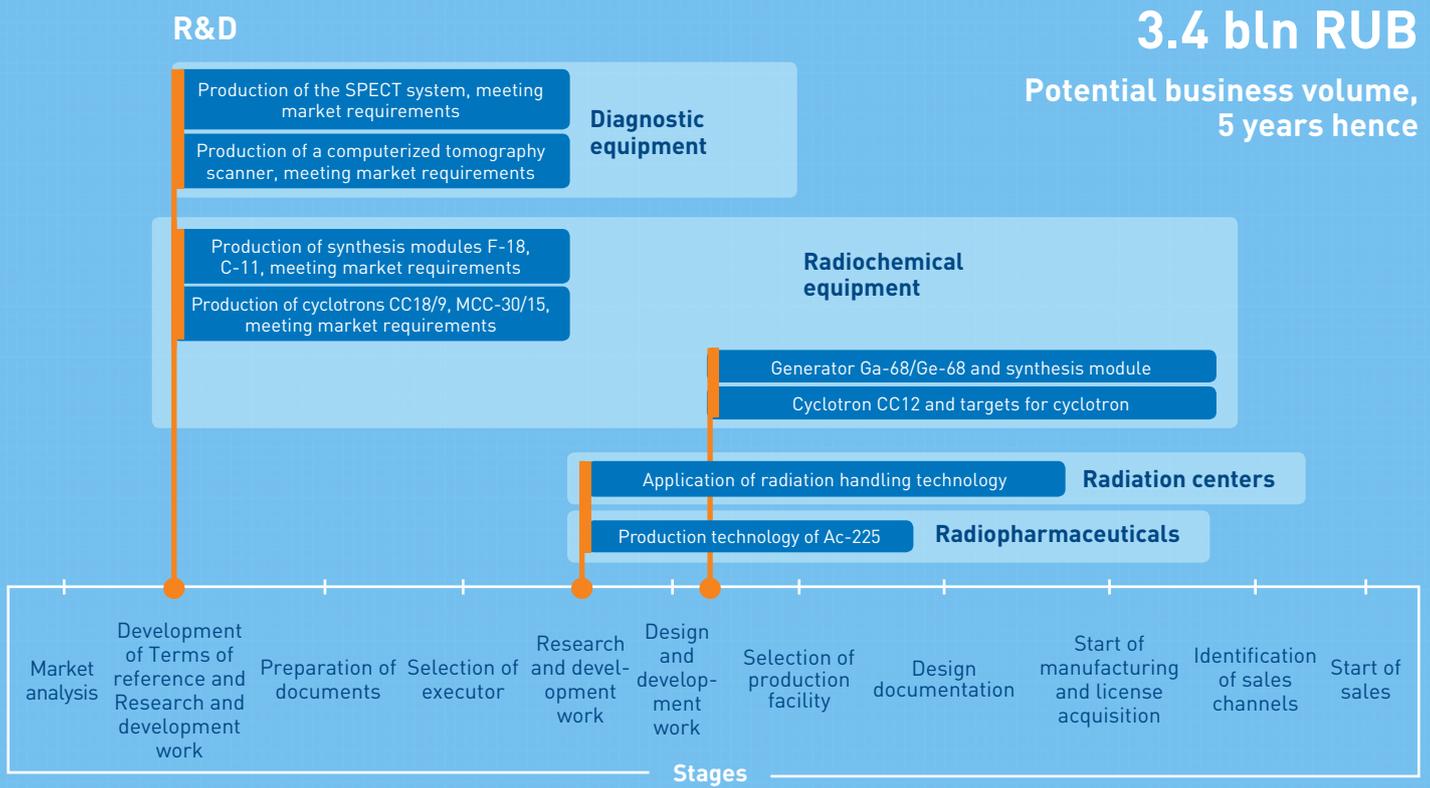
- duction of the first high-tech medical equipment (OPECT, OPECT/CT, PET/CT);
- the preparation of a project for the development of medical infrastructure together with the Vincha Institute for nuclear research (Belgrad, Serbia). It includes six medical centers in Serbia, equipped with PET-scanners and supplied with specimens produced at the radio-chemical Institute with Russian-made equipment;
- the approval of a project on RFP production (by the L.Ya. Karpov, Physical-Chemical Research Institute) meeting Good Manufacturing Practice standard and based on I-131 and Sm-153;
- the development of a project initiating the production of molybdenum-99 from low-enriched uranium at Leningrad NPP;
- the development of the project initiating the production of mini-cyclotrons in Russia;
- the completed construction and assembly of the second stage of a project on molybdenum-99 production at OJSC SRC NIIAR (Dimitrovgrad). The work was completed in a record short time — 2.5 years;
- the first supplies of ionization radiation sources based on Cobalt-60 designed by the FSUE Mayak Production Organization for the operators of radiation centers in South-East Asia and the Middle East;

- the selection of OJSC V/O IZOTOP by Schlumberger Logelco Inc., world leader in the field of oil and gas industry technologies, as a key partner for providing transport services in Russia;
- the completion by OJSC V/O IZOTOP specialists (under the international technical help scheme) of work targeted at the reduction of the radiological threat. The completion of work on 99 work-orders and agreements (the modernization and warranty maintenance of physical protection for units; inspection, disassembly, development of radioisotope thermoelectric generators and disposal of reactive-ion etchings; inspection, disassembly and transportation of RW as waste closed radionuclide sources; radioactive materials and RW management).

R&D to develop hi-tech equipment

The "Radiation technologies" program is a technical customer for R&D work due to the development of unique hi-tech equipment in demand on international markets: two R&D projects have been conducted in the field of producing RFP using Gallium-68 and two R&D projects to produce cyclotrons, the production technology of Actinium-225 from Thorium-232, irradiated with medium energy protons. These activities will allow the Corporation to develop international business worth 3.4 bln RUB.

Order for manufacturing of products and R&D for 2012–2017



The environment

- Perfecting an investment project to develop a network of plants for processing dangerous B class medical wastes on Russian territory (volume of funding – 2.03 bln RUB). The project was appraised by experts on the investment committee of ROSATOM State Corporation. The profit forecast by 2017 is 1.6 bln RUB;
- Preparation for the operational stage of a project to construct a pilot complex for the radiation processing of dangerous medical wastes; the signing of the Memorandum on cooperation with the Moscow region government;
- negotiating with the administrations of 10 Russian regions, interested in participating in projects – the potential market will be composed of more than 200 thous. t (more than 10 bln RUB).

 For details see the e-version of the Annual Report

The development of radiation centers

- Perfecting of an investment project to develop a center of radiation sterilization on the Russian territory (investment — 360 mln RUB). The project was appraised by experts on the investment committee of ROSATOM State Corporation. Profit forecast by 2017 is 3 bln RUB;
- Guaranteed demand in the pre-investment project phase: 26 large producers of medical materials (more than 70% of the market) confirmed their willingness to order services, the potential market volume will be 10,000 t of irradiated production.

Inspection systems

- beginning completion of the second-level strategic initiative program “Radiation technologies” by the Nuclear Weapons Complex.

PLANS FOR 2013

- To continue to develop the division “Radiation technologies” through the extension of business to new areas (the usage of radiation technologies within water treatment) and the handling of acquisition transactions;
- beginning the completion phase of main projects:
 - construction of pilot radiation centers,
 - localization of the equipment production for nuclear medicine,
 - development of production of medical isotopes (including Mo-99) and active pharmaceutical ingredients (Strontium-90),
 - construction of pilot plants for processing dangerous medical wastes, etc.;
 - work expanding Russian isotope products and the geography of equipment outlets;
 - the development of research to define highly-promising areas of development in the sectors of nuclear medicine, polymer products irradiation and waste handling using radioactive technologies.

4.3. The Effective NPP-Generated Power Supply of the Economy of the RF

4.3.1. MINING DIVISION

CONTRIBUTION TO THE FULFILLMENT OF THE STRATEGIC TARGETS OF THE CORPORATION

The parent company of the mining division is ARMZ Uranium Holding Co. (hereinafter - OJSC Atomredmetzoloto, OJSC ARMZ, ARMZ), the world’s largest vertically integrated nuclear holding.

The strategic targets of the mining division are as follows:

- Maximizing the value of mining business for shareholders,
- Long-term and stable support of the needs of ROSATOM State Corporation for raw material resources and strengthening its export potential,
- Leadership in the technologies for uranium mining and processing technologies,
- Diversification into strategic and innovative metals.

Contribution of the mining division to the Implementation of the Portfolio of Strategic Initiatives of ROSATOM State Corporation

Strategic Initiative	Contribution of the mining division
Retention of global leadership in the initial phase of the nuclear fuel cycle	Maintenance and development of the uranium production and processing competencies Long-term and stable support of the needs of ROSATOM State Corporation for raw material resources and strengthening its export potential Achieving the performance goal of uranium production performance Ensuring the global expansion of ROSATOM State Corporation in the international natural uranium market Establishing a global mining company that should specializes in the uranium supply for the world nuclear power generation industry, as well as in the mining of mineral raw material for other high-technology industries

Business Model

The control circuit of ARMZ Uranium Holding Co. includes a number of on-going uranium-mining enterprises and those under construction, as well as advanced, engineering and service assets located in the territory of Russia, Kazakhstan, Armenia, Mongolia, Namibia, Tanzania, the USA, Canada, and Australia. The total number of employees of ARMZ Uranium Holding Co. is more than 11,000.



For details, see the e-version of the Annual Report and the public annual report of OJSC ARMZ for 2012

RESULTS IN 2012

Key Results

- The total output of the Russian enterprises of OJSC ARMZ amounted to 2,862 t of uranium, while the total output of the enterprises of Uranium One Inc. amounted to 4,710.4 t of uranium;
- ARMZ Uranium Holding Co. has completed the sale of an approximate 13.9 % stake in Mantra Resources Limited to Uranium One Inc. for 150 mln USD;
- CJSC Dalur obtained a license from the RF Government entitling usage of a subsoil plot for uranium prospecting and mining in the Khokhlovskoe Field (the Kurgan Region);
- ARMZ Uranium Holding Co. has completed the acquisition of a 99.5 % stake in CJSC First Ore-Mining Company for 30 mln USD. The Company owns the rights to develop the Pavlovskoye Lead-Zinc Ore Deposit (Archipelago of Novaya Zemlya) that has available mineral resources of 9.5 mln t of ore and ranks among the five largest deposits in the world;
- OJSC PIMCU launched the first phase of Mine No. 8, the first new underground facility for the last 20 years. The facility was built a year earlier than planned and with 800 mln RUB saved. The mine capacity amounts to 12,800 t of uranium. The design capacity is 370,000 t of ore per year. The amount of 3.49 bln RUB was invested in the first phase of the construction of the mine. The total volume of investments in the project implementation will amount to 4.8 bln RUB;
- An anti-recession program was implemented in OJSC PIMCU and allowed mining to be kept at the target level, increasing the labour productivity

and achieving production performance. As a result of the measures taken, the Enterprise fulfilled the production plans in key areas.

Results of R&D and Innovations

- Approval of the Strategy of Technological Development of the mining division until 2030 at the meeting of the Presidium of the Scientific and Technical Council (STC) of the Corporation;
- Continued implementation of the Program of Innovative Development of ARMZ Uranium Holding Co. for 2011–2020;
- Continued work on improving the effectiveness of heap and block in-situ leaching at the Division enterprises.

All the innovative projects of OJSC ARMZ with R&D are financed from own funds. In 2012, the amount of financing equals 226.1 mln RUB. In order to achieve the economic and technological efficiency of production processes, forty two (42) projects were in progress in 2012.

Results of Efficiency Improvement Measures

Improving the energy efficiency of production is one of the most important activities of OJSC ARMZ. In 2012, coal and natural gas were the primary sources of electric power of ARMZ enterprises in Russia and allowed to generate and consume 6,474 TJ of energy.

In 2012, the investments in uranium exploration (Russian projects) totaled 835.3 mln RUB.

OJSC PIMCU is the most energy-consuming enterprise. Its average consumption for the year amounted to 594 mln kWh. The average energy consumption of CJSC Dalur and OJSC Khiagda was equal to 30 and 12 mln kWh respectively. There were no other renewable, or exhaustible, energy sources to be used. CJSC Dalur purchased intermediate energy external to the organization of 3 mln kWh. Thus, more than 6.3 mln kWh (64 TJ) of electric power was saved for 2012 as compared to 2009. In addition, OJSC PIMCU managed to reduce the emissions of CO₂ equivalent to 108,000 t due to a decrease in the indirect fuel consumption⁷ by 70,400 t.

Within the program of energy efficiency and energy costs saving (in 2013, the target reduction should amount to 17.4 % compared to 2012), three projects were implemented as follows:

⁷ Indirect fuel consumption is defined as the amount of fuel consumed under the subcontract, during business travels and the employees' drives to or from workcommuting.

- In order to reduce the energy consumption by 25 % (as forecasted, OJSC PIMCU modernized factory lighting (an actual estimate will be available at the end of 2013);
- In order to avoid downtime during power outages, the equipment that provides for power backup conversion was replaced;
- In order to manage the risks of unscheduled recovery of energy, OJSC PIMCU implemented an energy accounting system and reconstructed a protective relay and automatic equipment.

The program implementation will contribute to solving the global warming problem and mitigating the risks of downtime due to potential power outages. There was a zero-percent downtime compared to the total working time in 2012.

Measures for Nuclear and Radiation Safety

In order to ensure the physical security of nuclear facilities, the Program to Improve the Systems of Physical Security of Nuclear Facilities was developed for the enterprises of Uranium Holding. In 2012, the operations were carried out to modernize the technical equipment set of physical security in OJSC PIMCU and to build the same set in OJSC Khiagda, under the above Program. In CJSC Dalur, similar operations were completed by the beginning of the reporting period.

Prospects for 2013 and the mid-term period

- Implementation of the mid-term program of development of OJSC PIMCU;
- Completion of the Program of 45 Events by the 45th Anniversary of PIMCU;
- Start-up of production of rare-earth metals and scandium in CJSC Dalur;
- Completion of construction and commissioning of the main processing complex of OJSC Khiagda.



For details, see the e-version of the Annual Report and the report of OJSC ARMZ for 2012

4.3.2. FUEL DIVISION

CONTRIBUTION TO THE FULFILLMENT OF THE STRATEGIC TARGETS OF THE CORPORATION

This section is mainly devoted to the description of performance of TVEL OJSC.



Contribution of the fuel division to Implementation of the Portfolio of Strategic Initiatives Rosatom State Corporation

Strategic Initiative	Contribution of the fuel division
Retention of global leadership in the initial phase of the nuclear fuel cycle	<ul style="list-style-type: none"> Entering the market of fuel for PWR-reactors (TVS-Kvadrat) Forming an effective scientific and technical environment, development of an international network of R&D-centers Localization of enterprises (the constructed plant in Ukraine) Gradual increase in the share of the international uranium enrichment market Modernization of the separation and sublimation complex and fabricated plants Development and implementation of new competitive nuclear fuel types and efficient fuel cycles

The strategic target of the fuel division is to conquer, by 2030, 30–32 % of the world market of products and services of the initial phase of the nuclear fuel cycle (IP NFC) due to output of products with high consumer properties that allow strengthening of the current position and expanding of the presence of the fuel division in the nuclear fuel and enriched uranium market.

Business Model

For details, see the e-version of the Annual Report

- The start of the design of a new conversion production method based on the enterprise of OJSC SKhK has started;
- The completed transfer of gas centrifuge production from OJSC VPO Tochmash to OJSC KMZ and a transition made to the production of advanced gas centrifuges;
- A system for the redeployment of highly-qualified personnel (the Staff Relocation Project) was established for employees who are ready to change their residence and to continue working in other enterprises of the industry.

Results of R&D and Innovations

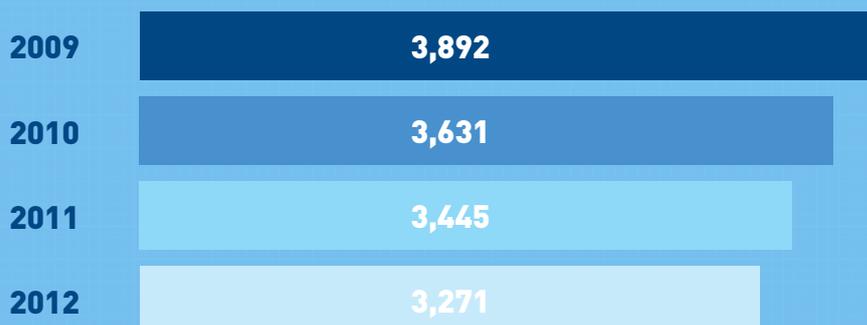
- The technical designs of core elements for WWER-TOI (with heating power of 3,300 mW) have been developed for fuel cycles of 3x18 and 5x12 months;
- The technical designs of the 4th generation of TVS based on TVS-2M and TVSA-PLUS and the technical designs of core elements for WWER-1000 have been developed;
- TVS and core elements for Nuclear Unit No. 1 of Novovoronezh NPP-2 were put into production under the NPP-2006 Project.

RESULTS IN 2012

Key Results

- As part of the project to set up the a nuclear fuel manufacturing plant in Ukraine, the Cabinet Council of Ukraine approved a feasibility study for the plant construction, as well as the production site; the development of project documentation development started;
- A substantiation package on the pilot batch of TVS-KVADRAT for PWR-reactors of Western design has been developed and delivered to the customer (the delivery is scheduled for 2014);

History of Electric Energy Consumption by the Enterprises of the TVEL Group, mln kWh



Results of Measures to Improve Efficiency

The electric energy consumption at the enterprises of the TVEL Group decreased by 16.0 % (621 mln kWh) and the heating energy consumption — by 29.7 % (1.214 mln Gcal) compared to the reference year of 2009 in comparable terms. The reduction of energy consumption (relative to the reference year of 2009 in comparable terms) amounted to 20.5 % (1,638 mln RUB) in terms of value.

A pilot project to implement the automated energy efficiency management system was carried out at OJSC MSZ, OJSC CMP and OJSC KMZ. It will allow to reduce energy costs and to increase efficiency in the mid-term period.

The projected amount of financing for implementing the Program of Energy Saving and Efficiency for 2013 is about 3.6 bln RUB.

Measures for Nuclear and Radiation Safety

The critical task of maintaining physical security up-to-the-mark is to initiate examinations and inspections on the physical security assessment performed by the regulatory authorities. In 2012, 34 inspections were carried out by the Commissions of Rostekhnadzor, the Ministry of Defence of the RF, the Prosecutor's Office and ROSATOM State Corporation. The inspections resulted in a positive assessment of the physical security of facilities that comply with the requirements of the rules and regulations.

The Security Services of nuclear facilities of the fuel division have carried out 1,147 on site inspections within the year. Seven (7) joint exercises were conducted in collaboration with the authorities of FSB of Russia, the Ministry of the Interior of Russia and the Civil Defence of EMERCOM of Russia.

In 2012, PH-contaminated territories of 5,619 m² in area were rehabilitated. This exceeds the last year's level by 86 % (3,025 m² in 2011).

The primary operations to solve the problems of the "nuclear legacy" in 2012 are as follows:

- The support systems and some part of the processing equipment of PUGR EI-2 were demounted at the reactor plant of OJSC SKhK under the program of PUGR decommissioning in OJSC SKhK;

History of Heating Energy Consumption by the Enterprises of the TVEL Group, K' Gcal

2009	4,095
2010	3,673
2011	3,138
2012	2,881

In 2012, the productivity of the Division amounted to 3.6 mln RUB per capita which is 21.6 % higher than that in 2011.

- OJSC SKhK completed the conservation of B-2 Field;
- The operations to install a protective layer and to make a planning layer under the impervious screen of chart No. 1 were conducted during the conservation of worked-out Tailing Pond No. 1 of OJSC CMP;
- Seven (7) nuclear and radiation-hazardous sites were closed down.

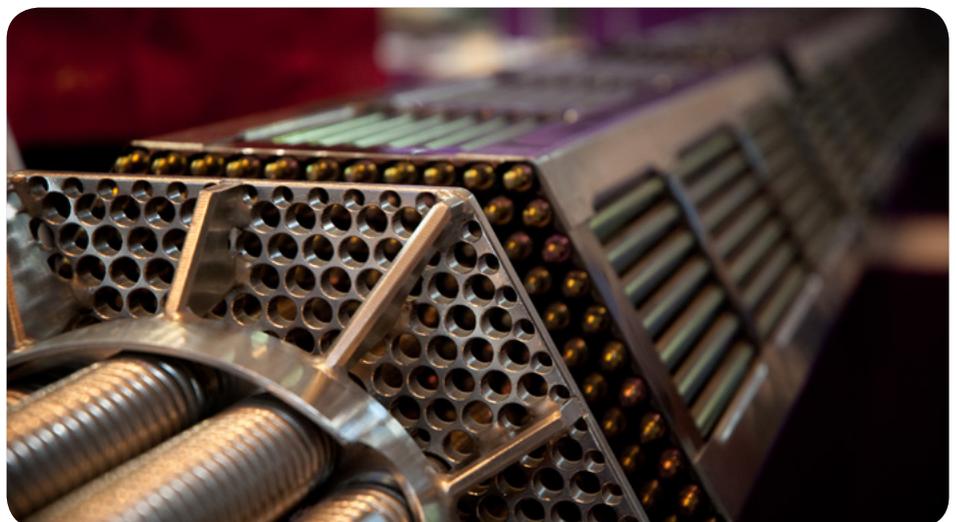
The activity of transferring RAW into an environmentally safe condition amounted to $1.04 \cdot 10^{18}$ Bq, thus the targets for 2012 have been totally achieved.

For the reporting year, works have been completed to the amount value of 1,353.1 mln RUB, including from the federal budget — amounting to 876 mln RUB.

Prospects for 2013 and the mid-term period

- Continued implementation of the Program of Energy Saving and Efficiency, continued reduction of energy consumption by the enterprises of TVEL OJSC (against 2009 in comparable terms) by 20 %;
- Construction of a new conversion operations of OJSC SKhK;
- Construction of facilities to produce absorber elements and the control and protection systems for power-producing reactor cores in OJSC MSZ;
- An increase in sales of non-nuclear products.

  For details, see the report of TVEL OJSC for 2012



4.3.3. MACHINE BUILDING DIVISION



CONTRIBUTION TO THE FULFILLMENT OF THE STRATEGIC TARGETS OF THE CORPORATION

The parent company of the Machine Building Division is OJSC Atomenergomash (hereinafter — Atomenergomash Group of Companies, OJSC AEM). The primary business line of OJSC AEM is the delivery of key equipment for NPP construction as part of the Russian project in the domestic and foreign markets.

Business model

For details, see the e-version of the Annual Report

RESULTS IN 2012

Key Results

- The policies of the the integrated program to improve the operating efficiency of the enterprises of Atomenergomash Group of Companies were approved;
- The strategy of OJSC AEM for sustainable development in the medium and long term was developed;
- The Federal Service for Ecological, Technological and Nuclear Supervision granted a license for the right to manufacture equipment for NPPs (valid for seven (7) years) that covers the full range of equipment for nuclear plants the safety of nuclear plants, Security Classes 1-4;
- JV ALSTOM Atomenergomash has signed a contract for the delivery of turbines and other turbine house equipment under ARABELLE low-speed technology for Nuclear Units No. 1, 2 of Baltic NPP (the amount of the contract is more than 35 bln RUB);
- Volgodonsk Branch of CJSC AEM-Technology was has been established and thus brought one of the best production sites of the former Atom mash back to the industry (the program of comprehensive restoration of production has started — it will allow the production of key processing equipment for nuclear and thermal power generation industries and gas-petroleum chemistry in the future);

Contribution of the Machine Building Division to Implementation of the Portfolio of Strategic Initiatives of ROSATOM State Corporation

Strategic Initiatives	Contribution of the Machine Building Division
Development of a sustainable power-plant engineering company of sufficient size	Increase in deliveries of technology, general-purpose equipment and services for heat-power engineering and gas petroleum chemistry, as well as in deliveries into for wind-power engineering, upon after the concurrent execution meeting of the sectorial market targets to deliver equipment and services to Russian NPPs and NPPs of Russian design.
Global expansion of WWER processing platform	Provision of capacities and expansion of the production facilities of Power Engineering Industry (PE Industry) in Russia and abroad to ensure an increase in output of NPP equipment of Russian design.
Increasing the share of nuclear generation in the RF	Deliveries of key and auxiliary equipment of NPPs in due time and volume.

In 2012, the labor productivity of the Division amounted to 2.44 mln RUB per person, that is 4.7 % more than in 2011.

Basic Capacity Factor

Enterprise	Capacity Factor, %
OJSC Afrikantov OKBM	95.4
OJSC ZiO-Podolsk	59.9
PJSC Energomashspetsstal	48,6
(Metallurgical Production)	48.6
PJSC Energomashspetsstal	99
(Machining Production)	98.3
OJSC Petrozavodskmash	99
OJSC CKBM	101

- The modernization of PJSC Energomashspetsstal (supplier of semifinished metallurgical products for the engineering industry) was completed and a unique large-size ingot of 415 t in weight was casted;
- OJSC ZiO-Podolsk shipped the first of four steam generators for Novovoronezh NPP-2 under construction;
- OJSC ZiO-Podolsk completed the delivery of equipment for reconstruction of Nuclear Unit No. 10 of Lugansk TPP (Ukraine);
- OJSC ZiO-Podolsk completed the performance of the contract for Gazprom OJSC (delivery of six precipitators for Yubileynaya Compressor Station (Yamalo-Nenets District));
- Gain in productivity is as follows:
 - Production of steam generators — 33 %;
 - Production of the pumps of main circulation pump units — 50 percent;
 - Production of Modernized pitch electromagnetic drive of control and protection system (CPS drive SHEM-3) — 60 %;
 - Production of spools of the main circulation piping — 50 %.

Clearing of production areas — 29,238 m², the same for warehouse areas — 1,626 m².

Capacities of the Machine Building Division allow the production of at least two sets of key equipment for NPPs per year.

Main Results of R&D and Innovations

In 2012, the enterprises incorporated in OJSC AEM were developing the following areas:

- Development of construction materials, production processes and equipment for the power engineering industry;
- Development of fuel coffins for UNF transportation and storage;
- Welding procedures and welding materials.

Improvement of Efficiency Measures

In 2012, a project to develop a comprehensive program to improve the performance of the enterprises of the Holding was launched so as to render work more effective and to enhance the market position.

Nuclear and Radiation Safety Measures

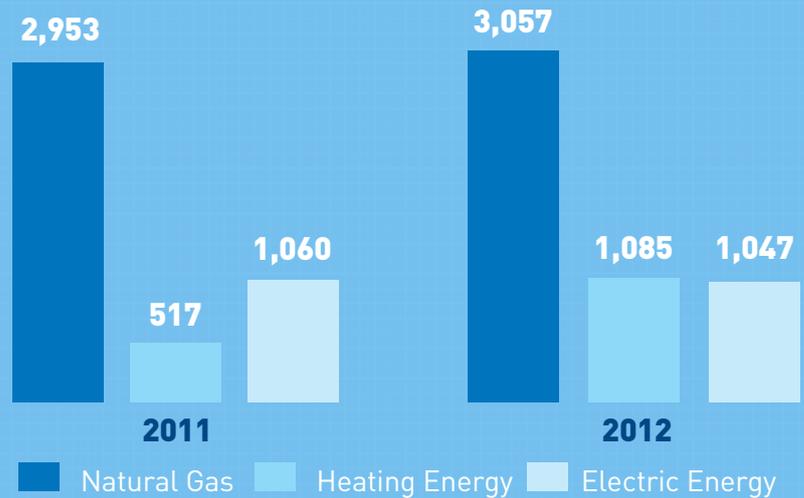
The measures are implemented in OJSC OKB GIDROPRESS and OJSC Afrikantov OKBM.

OJSC OKB GIDROPRESS performs the work on closed-type ionizing radiation sources. Personal dosimetry of the employees is carried out in accordance with the Program of Industrial Radiation Safety Monitoring by using DTU personal dosimeters, DVG-02T Facility and a set of personal dosimeters of DVGI-8D.

In 2012, OJSC Afrikantov OKBM performed operations related to the improvement of a set of critical test facilities to increase safety. Personal dosimetry procedures covered 106 individuals (94 in 2011 and 77 in 2010). The increase in number took place due to an increase in the scope of work. Personnel exposure decreased in the Company during the reporting year.

In 2012, the economic effect of improving proposals amounted to 2.8 mln RUB.

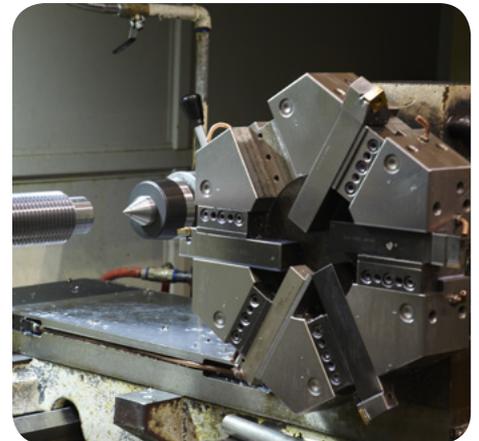
Energy Consumption of the Enterprises of Atomenergomash Group of Companies, thous. GJ



PROSPECTS FOR 2013 AND IN THE MEDIUM TERM

The Machine Building Division will continue to implement the previously announced plans on the products, allowing the expansion and globalization of operations. In particular, a strategic project will be implemented in the wind-power engineering, and the operations started on the production site of the project of ALSTOM Atomenergomash and concerning the development of reactor facility equipment in Volgondsk Branch.

OJSC AEM will begin preliminary work on the development of projects concerning the execution of mergers and acquisitions, transactions for establishing joint ventures and other forms of cooperation provided for in the non-nuclear markets, mostly abroad. It is specified in the Strategy of Machine Building Division until 2030.



 For details, see EAR and the report of OJSC AEM for 2012

4.3.4. POWER ENGINEERING DIVISION

CONTRIBUTION TO THE FULFILLMENT OF THE STRATEGIC TARGETS OF THE CORPORATION

The parent company of the Division is OJSC Rosenergoatom Group of Companies, which acts as the operator in respect of all operating NPPs in the territory of Russia and as the general contractor in respect of all NPPs under construction in the RF.

Business Model

OJSC Rosenergoatom Group of Companies is the key customer of products in the processing chain of ROSATOM State Corporation.

 For details, see the e-version of the Annual Report

RESULTS IN 2012

Key Results

- A record amount of electric energy was generated — 177.3 bln kWh (172.7 bln kWh in 2011). The energy output was equal to 102.7 % compared to the actual output in 2011. The reasons for the growth of energy output were as follows:
 - Commissioning of Nuclear Unit No. 4 of Kalinin NPP;
 - Cancellation of routine maintenance of Nuclear Units No. 1, 2, 4 of Balakovo NPP (18 days in total);

Contribution of the power engineering division to Implementation of the Portfolio of Strategic Initiatives of ROSATOM State Corporation

Strategic Initiatives	Contribution of the power engineering division
Increasing the share of nuclear generation in the RF	Increasing the proportion of nuclear generation as a result of the increase in installed capacity growth and nuclear power generation (incl. construction of nuclear units)
	Improving the NPP efficiency, i.e., increasing the Installed Capacity Use Ratio (ICUR) and the Load-Bearing Availability Factor (LBAF) of NPP, increased effectiveness of repair campaigns and fuel efficiency
	Reduction of operating costs
Global expansion of the WWER processing platform	Improving the efficiency of construction projects
	Improving the purchasing efficiency by consolidating the volume of purchases, inventory management and logistics optimization
	Serial construction under WWER-TOI Project
	Contribution Contributing to NPP construction abroad under the Build-Own-Operate Scheme
Closure of the nuclear fuel cycle based on fast-neutron reactors	Participation in the power export to Europe and the formation of related assets
	Servicing of WWER nuclear units abroad
	Assistance in the nuclear power infrastructure development of the infrastructure of nuclear power in the countries that have not had nuclear generation before
	R&D and construction of fast-neutron reactors

- The balance of the Federal Tariff Service of Russia has been met — 100.8 % (101.7 % in 2011);
- Completed work on extending the service life of operating NPP nuclear units, namely, Nuclear Units No. 1–3 of Balakovo NPP, Nuclear Units No. 1, 2 of Kalinin NPP, Nuclear Unit No. 4 of Kola NPP, Nuclear Units No. 3, 4 of Kursk NPP, Nuclear Units No. 1, 2 of Smolensk NPP;
- The proportion of NPP output as a share of the total energy output of Russia reached 16.8 %;
- Net electricity supply — 165,727.9 mln kWh.

Figure: Specifications of Operating NPP Nuclear Units

NPP	Unit No.	Type of Reactor	Gross Electric Capacity, MW	Generation of Nuclear Unit	Year of Commissioning
Beloyarsk	3	BN-600	600	II	1980
Bilibino	1	EGP-6	12	I	1974
	2	EGP-6	12	I	1974
	3	EGP-6	12	I	1975
	4	EGP-6	12	I	1976
Balakovo	1*	WWER	1,000	II	1985
	2*	WWER	1,000	II	1987
	3*	WWER	1,000	II	1988
	4	WWER	1,000	II	1993
Kalinin	1*	WWER	1,000	II	1984
	2*	WWER	1,000	II	1986
	3	WWER	1,000	II	2004
	4	WWER	1,000	II	2012

Kola	1	WWER	440	I	1973
	2	WWER	440	I	1974
	3	WWER	440	II	1981
	4*	WWER	440	II	1984
Kursk	1	RBMK	1,000	I	1976
	2	RBMK	1,000	I	1979
	3*	RBMK	1,000	II	1983
	4*	RBMK	1,000	II	1985
Leningrad	1	RBMK	1,000	I	1973
	2	RBMK	1,000	I	1975
	3	RBMK	1,000	II	1979
	4	RBMK	1,000	II	1981
Novovoronezh	3	WWER	417	I	1971
	4	WWER	417	I	1972
	5	WWER	1,000	II	1980
Smolensk	1	RBMK	1,000	II	1982
	2*	RBMK	1,000	II	1985
	3	RBMK	1,000	III	1990
Rostov	1	WWER	1,000	II	2001
	2	WWER	1,000	II	2010

* Nuclear units, where the operations on extending the service life were in progress as of 31/12/2012.

Results of R&D and Innovations

- Work completed on the Innovative Project of the Computerized Model of Standard Optimized Nuclear Unit Design (WWER-TOI);
- R&D was performed in order to improve the heating power of Nuclear Unit No. 4 of Balakovo NPP up to 107–110 %;
- Continued development of fast-neutron reactors as a basis for implementing a new processing platform of nuclear power based on CNFC. It will ensure the more effective use of natural uranium and UNF, i.e. the expected rise in uranium efficiency in NFC will amount to 31.8 % by 2020 compared to 2009, and the decrease in stored UNF and RAW will be 31.1 percent;
- Designing and construction of a floating nuclear power plant were carried out for

the power supply of decentralized power supply areas with extreme operating conditions;

- The number of WWERs-1,000 to be improved (both for the reporting period and in total) — 5 nuclear units, namely, Nuclear Units No. 1, 2 of Kalinin NPP, Nuclear Units No. 1, 2, 3 of Balakovo NPP (in progress).

Efficiency Improvement Measures

Improving Energy Efficiency

In 2012, in accordance with the requirements of the Ministry of Energy of the Russian Federation, the energy performance certificate of OJSC Rosenergoatom Group of Companies was created on the basis of surveys conducted. The energy performance certificate is regis-

tered by the Department of Energy Efficiency and Modernization of the Fuel and Energy Complex (FEC) of Minenergo of the Russian Federation under No. 1920/Э-007/0/2012.

In 2012, OJSC Power Efficiency Centre of INTER RAO UES performed energy surveys, including thermal imaging surveys, and certification of buildings and structures, in the branches of OJSC Rosenergoatom Group of Companies, which act as operating NPPs.

The surveys conducted resulted in the development of the “Consolidated Program of Energy Saving and Efficiency of the Branches of OJSC Rosenergoatom Group of Companies, which act as Operating NPPs”. This program became part of the larger program on energy sav-

Cooperation of ROSATOM State Corporation and WAO NPP

In 2012, WAO NPP included organizations that operated 541 reactors, incl. those in operation, under construction and decommissioning. In accordance with the move towards reorganization of WAO NPP, in 2012, the operations of WAO NPP Moscow Centre were aimed at implementing the recommendations of the Mitchell Commission, improving the quality of programs and increasing the required resources.

In 2012, the cooperation of WAO NPP and ROSATOM State Corporation amounted to the following:

- Participation of WAO NPP executives in the international forum of ATOMEXPO-2012 and holding a special event of WAO NPP within the ATOMEXPO Exhibition;
- Participation in the activities of the commission with regard to the public reporting of ROSATOM State Corporation;
- Holding of workshops as requested by ROSATOM State Corporation (concerning stress tests and nuclear fuel matters in Ukraine).

ing and efficiency of the nuclear power generation industry for 2012–2016.

The program includes measures for energy saving and efficiency of the nuclear power generation industry specified by a decree of ROSATOM State Corporation dated 24 December, 2010 "On the Centralization of Operations on Energy Saving and Efficiency of the Nuclear Power Generation Industry".

When selecting measures to be included in the program, priority is given to those where the effect of their implementation provides for the reduction of energy consumption by at least 3–5 %, or the payback period, which is less than 5–6 years.

Output Development Program

The primary objectives of the output development program for operating NPPs are as follows:

- Ensuring additional energy output;
- Increased CFNPP and LBAF ($= K_{got}$).

In 2012, seven (7) NPP nuclear units with WWER-1000 operated under an increased capacity of 104 % of the standard value, namely:

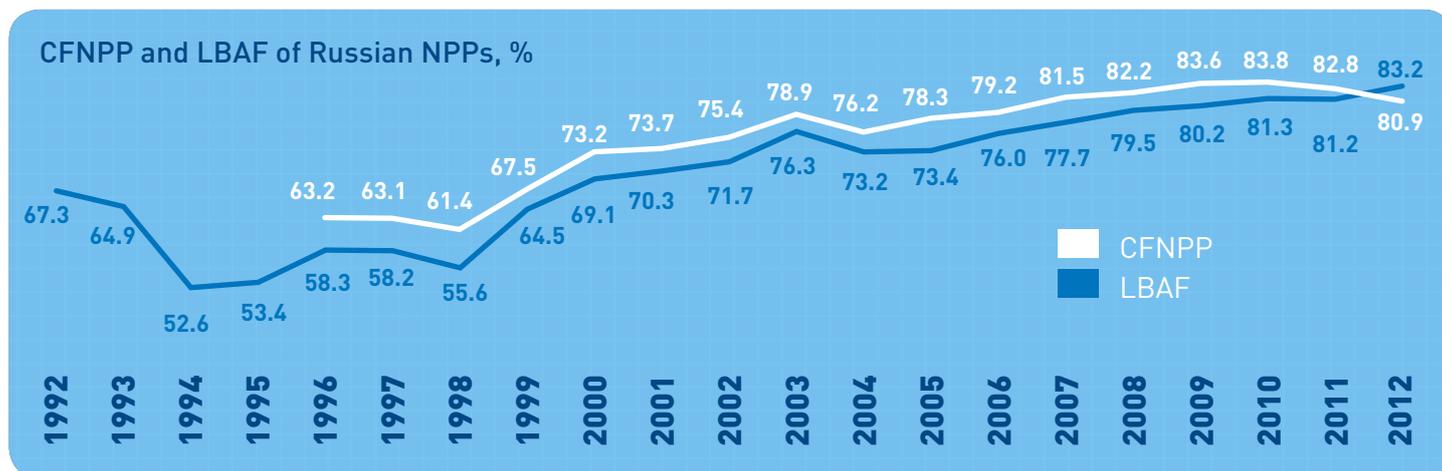
- Nuclear Units No. 1, 2, 3, 4 of Balakovo NPP;
- Nuclear Units No. 2, 3 of Kalinin NPP;
- Nuclear Unit No. 1 of Rostov NPP.

In 2011, the Output Development Program for Operating NPPs of OJSC Rosenergoatom Group of Companies for 2007-2015 was amended due to the changes in the operating conditions of nuclear units, in particular:

- Refusal to carry out measures to increase the heating power of RBMK-1000 by 5 %;
- Execution of work on restoring the life characteristics of RBMK graphite stack.

Given these conditions, the Output Development Program should result in an additional energy output of 87.6 bln kWh by 2015.

In 2012, the labour productivity of the Division amounted to 5.99 mln RUB per capita.



Measures for Nuclear and Radiation Safety Measures

The safety system of Russian NPPs, based on the defense-in-depth concept, is the ground basis for the technical policy of the Rosenergoatom Concern OJSC and is subject to the federal regulations on NPP safety that take into account the IAEA recommendations. All NPPs are equipped with RAW processing plant complexes. The existing RAW storages are undergoing reconstruction and the new ones are organized in the NPP territories in order to ensure the environmental safety of nuclear plants throughout their operating life.

In 2012, NPPs performed the following operations on RAW management:

- Balakovo NPP: Reconstruction of RAW storage cells in the a special building;
- Kalinin NPP: Construction of storage



Smolensk NPP

for Non-Return Protection Containers (NRPC);

- Kola NPP: Construction of a landfill for Very Low-Level Waste (VLLW), retrofitting of SRW incineration plant;
- Kursk NPP: Building of the a Complex for Processing of Liquid Radioactive Waste (CP LRW) and the a Storage for Liquid and Solid Waste (SLSW-II);
- Smolensk NPP: Commissioning of the first phase of the RAW Processing Complex.

PROSPECTS FOR 2013 AND IN THE MEDIUM TERM

- Increase in revenue up to 356 bln RUB;
- Increase in labor productivity up to 4,500 MW per man;
- Increase in EBITDA up to 148 bln RUB.

4.3.5. ENGINEERING ACTIVITIES

CONTRIBUTION TO THE FULFILLMENT OF THE STRATEGIC TARGETS OF THE CORPORATION

The operations of ROSATOM State Corporation in NPP engineering and construction are aimed at achieving the strategic targets in order to ensure the energy independence and guaranteed energy supply of the population and the economy of Russia, as well as the competitiveness of the projects of serial construction of NPP nuclear units.

The competitive advantage of Russian engineering is the best-practice extension to all participants in the market for the designing and construction of nuclear power facilities, as shown in the creation of a standardised contract for a full range of design and exploration work and standard Engineering Procurement Construction Management — a contract for nuclear unit construction. EPCM-projects include engineering, procurement, construction and project management.

Contribution of the Engineering Activities to Implementation of the Portfolio of Strategic Initiatives of ROSATOM State Corporation

Strategic Initiatives	Contribution of the Engineering
Global expansion of WWER processing platform	Increasing WWER-base growth abroad through construction designing under EPC and BOO schemes Provision of capacities and expansion of the production facilities of PE Industry in Russia and abroad in order to ensure an increase the output of NPP equipment of Russian design
Increasing the share of nuclear generation in the RF	A full range of Front End Engineering and Design (FEED) in NPP construction and improvement, incl. construction site selection, project and development of working documentation development, NPP construction supervision and technical support of operations, as well as organization of building and construction works, delivery of equipment and materials, precommissioning and commissioning of NPPs

RESULTS IN 2012

Financing of NPP Construction

Investment financing is made using own funds of Rosenergoatom Concern OJSC, from the federal budget (asset contribution of the Corporation), as well as using borrowings loans if necessary.

The investment program for 2012 was approved by the Ministry of Energy of the RF for the amount of 156.1 bln RUB, incl. the asset contribution of ROSATOM State Corporation of 58.2 bln RUB. The actual amount of funds allocated to investment operations in the form of capital investments amounted to 156.4 bln RUB, or 100.2 % of the target, the amount of application of asset contribution — 100 % of the target.

The state orders were performed in full. In 2012, the completion of the investment program of the Group of Companies amounted to 122 % in terms of capital investments and 97 % in terms of value (3 % saved). The investment program for the Corporation's facilities was executed in full. The efficiency of application of the asset contribution amounted to 100 %. In addition, prefinancing for 2013 started in due time.

Amount of Funds Allocated to NPP Construction in the RF, mln RUB

	Funds, in total	Asset Contribution of the Corporation
Investment projects of construction of NPP nuclear units	102,098.70	58,207.54
Beloyarsk NPP BN-800, Nuclear Unit No. 4, completion	16,772.49	9,901.43
Kalinin NPP, Nuclear Unit No. 4, completion	4,754.17	0.00
Baltic NPP, Nuclear Unit No. 1, construction	10,021.53	0.00
Baltic NPP, Nuclear Unit No. 2, construction	1,837.88	0.00
Leningrad NPP-2, Nuclear Unit No. 1, construction	15,337.58	13,405.50
Leningrad NPP-2, Nuclear Unit No. 2, construction	7,432.84	6,584.10
Nizhny Novgorod NPP, Nuclear Unit No. 1, construction	1,243.42	0.00
Novovoronezh NPP-2, Nuclear Unit No. 1, construction	11,836.75	0.00
Novovoronezh NPP-2, Nuclear Unit No. 2, construction	10,099.54	9,153.91
Rostov NPP, Nuclear Unit No. 3, construction	13,879.87	13,003.85
Rostov NPP, Nuclear Unit No. 4, construction	6,321.91	6,158.75
PATES	1,721.83	0.00
Financing of FEED for new NPPs	838.85	0.00

Results in 2012

- Nine (9) nuclear units were under construction;
- PATES (Floating Nuclear Power Plant) was under construction for the City of Pevek of the Chukotka Autonomous District. The power-generating equipment of the nuclear unit has been produced and delivered to the builder by the end of 2012. The steam generating units of

reactor facilities were assembled and the metal-water protection tanks were produced in the workshops on the factory floor. Steam-turbine plants were shipped and installed. A set of cores were made for the first fuel charge of reactors of the nuclear unit. The total volume of hull structures built is more than 90 %.

 For details, see the e-version of the Annual Report

PROSPECTS FOR 2013 AND IN THE MEDIUM TERM

- In 2013, the total installed capacity of Russian NPPs (including nuclear unit decommissioning) should reach 25,242 MW;
- The number of NPP nuclear units under construction in Russia in 2013 — 9;
- The number of NPP nuclear units to be commissioned in Russia in 2014 — 3.

4.4. Strengthening our Position as Global Player in the World Market of Nuclear Technologies and Services

4.4.1. INTERNATIONAL COOPERATION



Nikolay Spassky, Deputy Director General — Director of the International Unit

How successful was the year of 2012 for the Corporation in the development of international judicial cooperation?

Indeed, the year of 2012 was successful for the Corporation in terms of our international cooperation. The year was difficult, certainly, the initial shock following the Fukushima disaster has dissipated, but nevertheless we have had to work in a fundamentally new situation that was much more complicated.

As usual, we have operated in several areas simultaneously.

In my opinion, the most important was the unanimous decision of the UNESCO

World Heritage Committee that gave the green light for the beginning of the development of uranium deposit in Mkuzhu River, which is the largest in Africa. Of course, we had a lot of additional work to do, e.g. obtaining a mining license (by the way, as of today we have obtained this license). But this decision represented a breakthrough in solving the task set by the President of Russia, namely to establish a resource base abroad for the expansion of uranium production for the benefit of the Russian nuclear industry. And this decision became possible due to operations well coordinated between various units of the Corporation, that were systematic, transparent and in strict compliance with the rules of the area, something that was quite new for us at the time.

We have obtained the consent of IAEA to hold the International Ministerial Conference named Nuclear Energy in XXI here, in Russia, in St. Petersburg in June 2013. To put it modestly, this is the largest international forum in the history of the nuclear power generation industry. And for Russia as a state that acts as the host of the event, it's a good opportunity to promote our vision of the agenda of the global development of the industry.

Later on, Russia was formally admitted to the Nuclear Power Agency of OECD last year. NPA is a relatively small structure, but very effective — they work out stan-

dard requirements for licensing, make the rules and procedures in the isotope market and have a wealth of data for reactor codes. Given our plans for global expansion, the membership in NPA is extremely important for us.

As usual, a lot of our efforts and attention were allocated to collaboration with our traditional key partners — India, China and Kazakhstan. As a result, we worked out the entire necessary regulatory framework for construction of the second stage of the Tianwan NPP and launched the project. As for India, there are some problems, but we hope to complete the same work by the time of commissioning of the first unit of NPP Kudankulam.

A point that should be mentioned is the formation of the international judicial infrastructure.

Here, I would mention the intergovernmental agreement on NPP construction in Nigeria as this is a huge country with a population of 150 mln and enormous prospects despite all the current difficulties and lack of stability. I would also add the intergovernmental nuclear safety agreement with Belarus, fundamentally new in content and post-Fukushima.

The list goes on. Let me say again, the year was truly difficult, but positive.

What is your forecast for the overall international environment concerning development of the nuclear power generation industry? Will it be profitable in the coming years?

The forecasts of IAEA are very illustrative. Whereas prior to Fukushima, IAEA estimated the industry capacity for the time horizon to 2030 of 511 and 807 GW according to a worst case and best case scenario respectively, after Fukushima this was revised to — 501 and 746 GW respectively. As you can see, it's a minimum adjustment.

However, the overall international environment in terms of the development of the industry underwent changes; it became tougher, more exacting, illusions were dismissed, the concept of a 'nuclear renaissance' went out of date. International discourse on the issue interprets nuclear safety as a mandatory and general condition for the development of the industry. I believe that these new terms correspond to the strategic interests of ROSATOM. We do not need to re-discover the priority of nuclear safety. It's the lesson we have learned long ago, once and for all. We possess the referential technologies of Gener-

ation 3+, we construct NPPs of this design all over the world. Our unique feature is the exclusive integrated offering, no one else has anything like that.

However, this is not to say that you can rest on your laurels and do nothing. We have to work day and night in order to maintain our strategic competitive advantages. And innovations are the primary key to success. Nowadays, the nuclear power generation industry is a prime motivator behind innovation-based development.

What are the basic trends in international judicial activity in the medium term? What kind of results could be achieved?

I would divide our international judicial activity into several large areas.

First, there is the basic international judicial infrastructure. To start with, there is the framework of intergovernmental agreements on cooperation on atoms for peace. In addition, there are the agreements on the early notification of a nuclear accident, which are perceived as a mandatory part of the package following Fuku-

shima. They are not very inspiring, but necessary. And their preparation requires a fairly labour-intensive effort.

Secondly, there are the agreements on NPP construction. To be fair, I would not like to name specific countries which we are negotiating with now, but this is the focus of our work. And not only in terms of volume and scale, but also because NPP construction contributes significantly to cooperation in a number of other areas — from training to the development of pure science.

Thirdly, there are some new topics such as nuclear safety and nuclear medicine and, in general, non-power nuclear applications. Here, we are pioneers in many ways. Moreover, I'd like to mention the intergovernmental agreements on cooperation in nuclear science. This may be a familiar, even banal theme, but we have never approached it in such a way, with the study of intellectual property issues, lists of specific projects and facilities. Now we're working on such an agreement with USA and it is progressing very well. It's not so easy, but we hope to succeed.

In 2012, the international activities of ROSATOM State Corporation were aimed at establishing a favourable international judicial and political environment for the global expansion and recognition of the Corporation's leadership in the world market of nuclear technologies, as well as strengthening nuclear safety and non-proliferation measures.

STRENGTHENING THE INTERNATIONAL JUDICIAL FRAMEWORK FOR COOPERATION

In 2012, operations continued for the expansion of the international judicial framework for promoting Russian nuclear power technologies in the world.

Eight (8) intergovernmental and fourteen (14) interdepartmental documents have been signed for the reporting period (4 and 8 in 2011 respectively).

As of 31/12/2012, the legal basis for cooperation was available for 54 countries.

Cooperation with Key Partners

People's Republic of China	Documents were signed with the People's Republic of China, namely, the intergovernmental protocol necessary for construction of Nuclear Units No. 3, 4 of Tianwan NPP, as well as the Roadmap setting out the priorities for further Russian-Chinese cooperation in the key areas of nuclear power
Federal Republic of Nigeria	A document was signed with the Federal Republic of Nigeria, namely, the intergovernmental agreement on cooperation in the design, construction, operation and decommissioning of nuclear plants in the territory of Nigeria - the first agreement on the construction of NPPs of Russian design in Africa
United Arab Emirates	A document was signed with the government of the United Arab Emirates, namely, the Framework Agreement on using nuclear power for peaceful purposes that legally supported the long-term contract for 15 years concluded by OJSC Techsnabexport for uranium supply to the country, uranium conversion and enrichment for the first NPP in the UAE
Kyrgyz Republic	A document was signed with Kirgizia, namely, the Framework Agreement on using nuclear power for peaceful purposes, which was of particular importance for implementation of the Interstate Target Program named Restoration of the Territories of EURASEC Member States Affected by Uranium-Mining Factories
Japan	An exchange of diplomatic communication put into force the Intergovernmental Agreement with Japan on cooperation in the peaceful use of nuclear power, which opened up the prospects of large-scale commercial cooperation. An exchange of letters between the Government of Russia and the Government of Japan ensured the appropriate amendment of the Agreement
People's Republic of Bangladesh, Mongolia, Republic of Ghana	Documents were signed, namely, memorandums on establishing a Nuclear Power Information Center in Bangladesh, on personnel training for the nuclear industry of Bangladesh, on training of nuclear-power specialists for Mongolia, and on cooperation with Ghana in using nuclear power for peaceful purposes, which would serve to establish an infrastructure for the further development of bilateral cooperation in the nuclear field in these countries

COOPERATION WITH INTERNATIONAL ORGANIZATIONS

All the financial obligations of the Russian Federation within its international activity were fulfilled.

Participation of ROSATOM State Corporation in the Activities of International Organizations

International Atomic Energy Agency	<p>Within the framework of work to ensure the participation of Russia in INPRO for 2008-2012, the contribution of 23 mln RUB was paid to the extra-budgetary fund of IAEA. According to the Decree of the RF Government, in 2013-2015, the contributions of 24.6 mln RUB p.a. are to be paid to the extra-budgetary fund of IAEA in order to execute the plan of action for 2013-2015 concerning implementation of an international project on the innovation of nuclear reactors and fuel cycles of IAEA.</p> <p>A voluntary contribution of 39.8 mln RUB was made together with the participation of Russia in the IAEA Technical Cooperation Program for 2012-2014.</p> <p>A key event is the selection of Russia (St. Petersburg) as the venue for the 2013 High-Level Conference of IAEA named Nuclear Energy in XXI. Such conferences are held every four years and set the tone for development of the global nuclear power generation industry.</p> <p>The resulting document of the High-Level Fukushima Conference of IAEA on Nuclear Safety (Japan, Koriyama) sets out the basics of Russian initiatives to strengthen international nuclear safety measures.</p> <p>The Corporation started practical implementation of the regional technical cooperation project of IAEA in order to improve the skills of medical physicists of the CIS countries in radiotherapy and radiation oncology. The first two-week training courses were held. The launch of a new Russian regional project on training of specialists in the field of restoration was initiated.</p>
Nuclear Power Agency of the Organization for Economic Cooperation and Development	<p>On 23/05/2012, in collaboration with the Ministry of Foreign Affairs and the Ministry of Economic Development of the RF, an exchange of letters took place with the Secretary General of OECD on accession of Russia to the Nuclear Power Agency of OECD. The official procedure for admission of the RF to this international organization was completed. Russia became a member of NPA OECD as of 01/01/2013. Participation in the international organization will provide access to the NPA Data Bank, will contribute to bringing the Russian requirements for reactor technology certification in line with international practice, and will create extra opportunities for promoting Russian nuclear power technologies on the world market.</p>
Council for Cooperation in Using Nuclear Power for Peaceful Purposes under the Integration Committee of the Eurasian Economic Community	<p>The Interstate Target Program named Restoration of the Territories of EURASEC Member States Affected by Uranium-Mining Factories was approved by the Resolution of the Interstate Council of the Eurasian Economic Community (EURASEC) at the highest level.</p>
Commission of CIS Member States on Using Nuclear Power for Peaceful Purposes	<p>At the 56th Meeting of the CIS Economic Council, a Draft Agreement was approved on coordination of interstate relations of CIS member states in using nuclear power for peaceful purposes. The Agreement is to be signed at the regular meeting of the Council of the Heads of Governments in the 1st quarter of 2013. The documents were approved at the meeting of the Commission for Economic Affairs under the CIS Economic Council, namely, the draft regulations on the basic organization of the CIS member states for information exchange on the operation and improved safety of nuclear research facilities and the draft report on the Commission's performance in 2009-2012. The decision was made to submit these documents at the regular meeting of the CIS Economic Council.</p>

STRENGTHENING THE NUCLEAR NON-PROLIFERATION REGIME

Results in 2012

- Intergovernmental agreements on the import of irradiated nuclear fuel from research reactors into Russia were signed with Vietnam and Uzbekistan;
- An agreement on the transportation of nuclear materials from Russia to Hungary and back again through the territory of Ukraine was signed between the Government of Russia, the Government of Hungary and the Government of Ukraine;
- A working document was signed with the USA to convert research reactors in both countries for using low-enriched uranium fuel.

FULFILLMENT OF THE INTERNATIONAL COMMITMENTS AND THE NATIONAL LEGISLATION ON EXPORT CONTROL

In collaboration with SUE SRC RF-IPPE and Association Inform-Atom, a seminar on export control in the nuclear field was held for professional experts of the organizations of ROSATOM State Corporation in respect of informing IAEA in accordance with its international commitments.

No violations of export control were found on the side of the organizations of the Corporation for the reporting period.

PROSPECTS FOR 2013 AND THE MEDIUM TERM

Operations will continue on the key lines of cooperation, and new intergovernmental agreements on cooperation in atoms for peace are to be signed. First of all, there is work with partner countries in order to develop and improve the international judicial framework of cooperation on topics such as innovation, research activities, NPP construction, training, radioisotopes, etc.

The plans to be completed by 2016 are as follows:

- Fulfillment of the program of the export into Russia of used HEU fuel of foreign research reactors of Russian design;

- Completion of forming a network of foreign representative offices in embassies, trade missions and permanent missions of Russia initiated by ROSATOM State Corporation;
- Commencement of the practical implementation of a long-term Interstate Target Program named Restoration of the Territories of EURASEC Member States Affected by Uranium-Mining Factories.

4.4.2. INTERNATIONAL BUSINESS



Kirill Komarov, Deputy Director General for Development and International Business

Despite the post-Fukushima syndrome, in 2012, ROSATOM State Corporation significantly increased its portfolio of overseas orders again. What are the main reasons for this success?

The accident at NPP Fukushima, contrary to expectations, did not have a material adverse effect on the development of the world nuclear power generation industry. According to current forecasts, the total installed capacity of NPPs in the world will be about 590 GW by 2030, that is only 11 % below the pre-Fukushima rate. On the other hand, the demands on the industry have been steadily growing, especially in terms of the security of technologies. Nowadays, customers expect a new station to be equipped with a combination of effective systems of both active and passive safety. And we offer such solutions. In addition, our product in the world market of NPP construction is not limited only to technologies — we render our clients assistance in establishing a national nuclear infrastructure, financing, training, and work with a popular feeling. This approach allows ROSATOM to maintain its leading position in the world.

What are the most significant challenges the Corporation faces in the international nuclear market? What is the level of competitiveness of ROSATOM as compared to other market players?

The global financial and economic crisis can be considered one of the most negative factors affecting the development of the nuclear power generation industry given the high capital intensity and long payback period. It is a serious challenge for customers and vendors. Under these circumstances, it is critically important that ROSATOM is able to render assistance in the area of project financing under different conditions, from using a BOO contract (Build-Own-Operate) to assistance in the provision of government export credit facilities. In addition, in such a situation, it is impossible to maintain competitiveness without having a pool of reliable and proven partners from different countries, so we are focused on expanding the supply chain all over the world.

What are the forecasts relating to the situation in the international nuclear market in the nearest future? Should we expect a further increase in the portfolio of overseas orders?

We have set ourselves an ambitious goal for 2013 — to increase the portfolio of overseas orders for the decade up to 72 bln USD. And within the framework of the strategic planning for the time horizon to 2030, ROSATOM has set itself the task to construct and commission up to 30 nuclear units abroad. Of course, there are factors that may adversely affect our plans — first of all, the global environment, which is hardly predictable and stable at the present moment.

Will the Russian nuclear industry be able to become the leader of the Russian international business in the long run, and to compete with commodity exports?

Today, the export of nuclear products and services still makes up a small part of the total volume of Russian export. However, it should be kept in mind that the export of nuclear technologies is a long-term nature. For example, when we have received the order for NPP construction, we thereby created the conditions for the conclusion of contracts for fuel supply and the maintenance of nuclear units built almost 60 years in the future. Not to mention the fact that the export of nuclear technologies is the testimony of our technological leadership in the global arena.

What projects do you think are of higher priority for implementation in the coming years (which are already being implemented, or planned for implementation)?

We value all the projects that we are implementing. In addition to existing projects, we are eager to gain a foothold in new markets — in Latin America, the Asia-Pacific Region, Africa and the Middle East. As ambitious as it sounds, the potential map of our presence covers almost every region of the world. To date, nearly 50 countries are actively considering implementation of nuclear power programs, and all of them are potential customers of ROSATOM.

TRANSFORMATION OF ROSATOM STATE CORPORATION INTO THE GLOBAL TECHNOLOGY LEADER IN THE NUCLEAR INDUSTRY

ROSATOM State Corporation is one of the leaders on the world market of nuclear technologies and services, ranking first in the world in the number of nuclear units under construction simultaneously and by uranium enrichment, and second in the world by means of installed capacity of NPPs and the uranium resource base. In 2012, revenues from foreign operations amounted to 33 % of the total revenues of the Corporation•.

Achieving global technology leadership in the nuclear industry is the implementation target of the strategy of ROSATOM State Corporation. In the long term, the Corporation plans to significantly expand international business and this is shown in the targets of the Corporation and its organizations to 2030. Globalization is one of the key priorities of the strategy of the Corporation: seven of eight strategic initiatives are fully or partly aimed at ensuring a global presence.

In order to support the development of foreign business and to increase ROSATOM brand recognition, in 2012, eight marketing offices were set up — in Singapore, Ukraine, Czech Republic, Slovakia, Hungary, Bulgaria, the Republic of South Africa and Great Britain. In 2012-2014, the Corporation plans to open more than 20 marketing offices abroad.

In late 2011, the infrastructure strategy of the transformation of ROSATOM State Corporation into a global company was developed. It contains the concept and plan of transformation over the next five years.

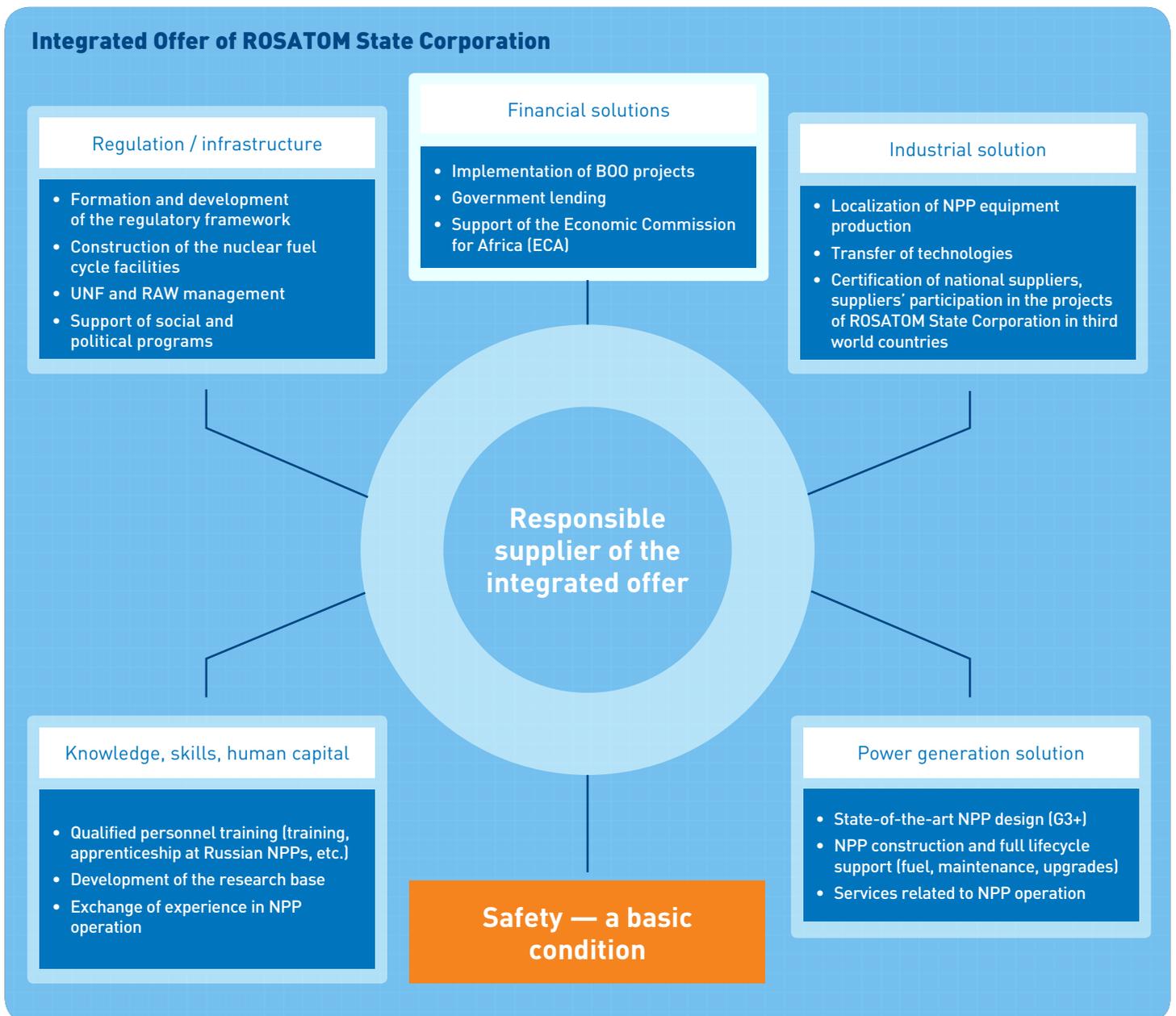
For details, see the e-version of the Annual Report

Sectorial Program of Development of Leaders and Participants of Globalization

In 2012, the Program of Development of Leaders and Participants of Globalization started as part of the training of personnel to participate in international activities. The Board of Trustees was formed as a part of the sponsorship infrastructure. 152 participants were selected within the Program. The introductory seminars of Personnel Management and Legal Support of International Activities were held. The program members started studying the project initiatives.

INTEGRATED OFFER OF ROSATOM STATE CORPORATION

A key competitive advantage of the Corporation in the global nuclear power market is the integrated offer to provide services and maintenance of NPP abroad. As a responsible supplier of nuclear technologies, the Corporation ensures a comprehensive solution for implementing NPP construction projects and actively contributes to the development of the nuclear power generation industry in countries that are new to nuclear power.



Results of Foreign NPP Construction

At the end of 2012, the portfolio of overseas orders across the decade amounted to 66.45 bln USD, that is 31 % higher than in 2011.

The portfolio of orders for NPP construction abroad has increased by 48 % up to 28.85 bln USD due to concluding new contracts for NPP construction under previously signed

intergovernmental agreements. Thus, at the end of 2012, the number of NPP units in the portfolio decreased from 21 to 19 in connection with the removal of the NPP Belene construction project, which was terminated in accordance with the decision of the Government of Bulgaria.

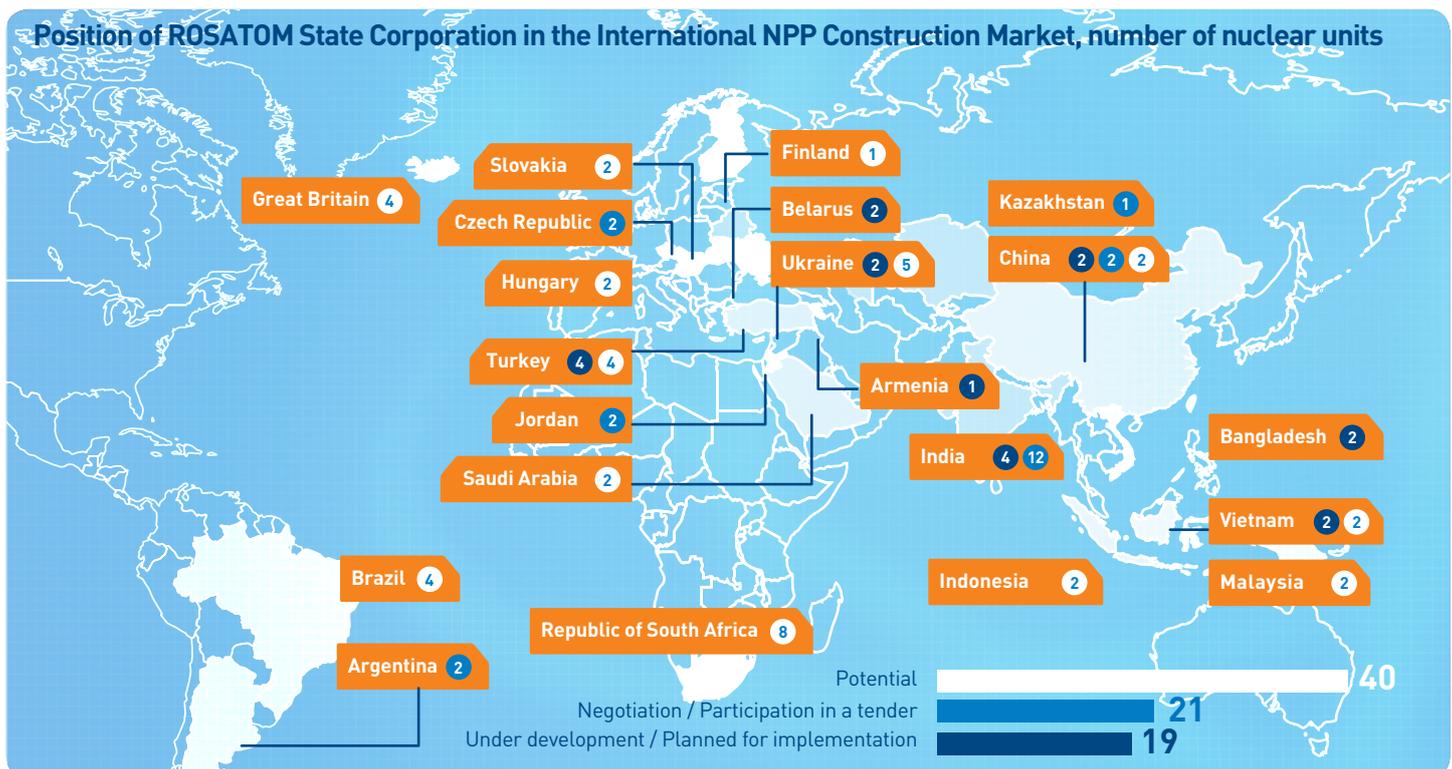
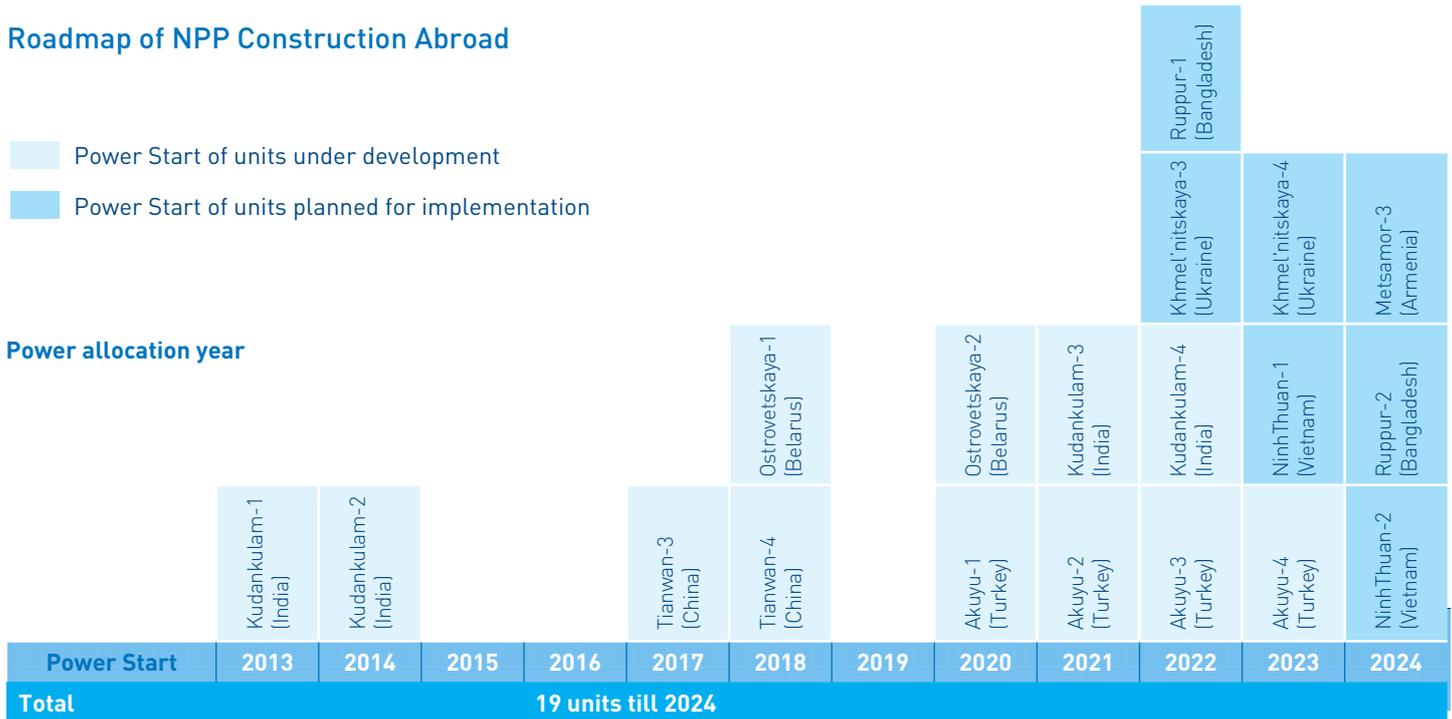
In the reporting year, ROSATOM State Corporation performed the simultaneous construction of 12 NPP units abroad, incl. Nuclear Units No. 1–4 of NPP

Kudankulam in India, Nuclear Units No. 3, 4 of NPP Tianwan in China, Nuclear Units No. 1-4 of NPP Akkuyu in Turkey, and Nuclear Units No. 1, 2 of NPP Ostrovetskaya in Belarus. In addition to the implementation of the projects under construction, in 2012, the organizations of the Corporation participated in tenders for the construction of Nuclear Units No. 3, 4 of NPP Temelin (Czech Republic) and for NPP construction in Jordan.

Roadmap of NPP Construction Abroad

- Power Start of units under development
- Power Start of units planned for implementation

Power allocation year



Map of Global Presence



- Geological exploration and uranium production
- LEU supplies and uranium enrichment services
- Supplies of nuclear fuel and its components
- NPP construction
- (D) Project under Development
- (A) Advanced Project

- | | | | | | | | | | | |
|--|--|--|--|--|---|---|---|--|--|--|
| <p>1 Australia (A)
Development of the Honeymoon Field</p> <p>2 Argentina (D, D)
Studying the feasibility of the construction project of Nuclear Unit No. 3 of NPP Atucha</p> <p>3 Armenia (A, A, A)
Nuclear fuel supply. Preparations for implementing the construction project of Nuclear Unit No. 3 of NPP Metsamor</p> | <p>4 Bangladesh (D, A)
Preparations for implementing the construction project of Nuclear Units No. 1, 2 of NPP Ruppur</p> <p>5 Belarus (D, A)
Preliminary work on the construction of Nuclear Units No. 1, 2 of NPP Ostrovetskaya</p> <p>6 Belgium (A)
Supplies of uranium products</p> <p>7 Bulgaria (A)
Nuclear fuel supplies for Nuclear Units No. 5, 6 of NPP Kozloduy</p> | <p>8 Brazil (D)
Cooperation with Brazilian companies under IGAs on cooperation in the field of using nuclear energy for peaceful purposes</p> <p>9 Great Britain (A)
Supply of fuel from reprocessed uranium at NPP Sizewell</p> <p>10 Hungary (A)
Nuclear fuel supplies for Nuclear Units No. 1-4 of NPP Paksh</p> | <p>11 Vietnam (D, A)
Preparations for implementing the construction project of Nuclear Units No. 1, 2 of NPP NinhThuan</p> <p>12 Germany (A, A)
Supplies of uranium products</p> <p>13 India (A, D, A)
Construction of Nuclear Units No. 1, 2 of NPP Kudankulam. Preliminary work on construction of Nuclear Units No. 3, 4 of NPP Kudankulam. Nuclear fuel supplies for Nuclear Units No. 1, 2 of NPP Kudankulam</p> | <p>14 Jordan (D)
Participation in the tender for NPP construction</p> <p>15 Iran (A)
Supplies of uranium products</p> <p>16 Spain (A)
Supplies of uranium products</p> <p>17 Kazakhstan (A, D, D)
Development of joint ventures of JSC JV Zarechnoe, JSC JV Akbastau, LLP Karatau, LLP Betpak Dala, LLP Kyzylkum. Implementation of a project to establish a Uranium Enrichment Center in the RF (a joint Russian-Kazakhstan venture CJSC TsOU) as an alternative option</p> | <p>18 Canada (D)
Operations of the Headquarters of Uranium One (Toronto)</p> <p>19 China (A, D, A, D, A)
Delivery of 6 reloads of TVS-2M for Nuclear Units No. 1, 2 of NPP Tianwan. Fuel supply for experimental fast-neutron reactor. Supplies of uranium products. Construction of Nuclear Units No. 3, 4 of NPP Tianwan</p> <p>20 Mexico (A)
Supplies of uranium products</p> | <p>21 Mongolia (D)
Implementation of the Russian-Mongolian intergovernmental agreement on cooperation in the field of natural uranium production</p> <p>22 Namibia (D)
Supplies of uranium products</p> <p>23 UAE (A)
Supplies of uranium products</p> | <p>24 Russia (A, A, A, A)
Uranium exploration and mining, enrichment and conversion of uranium products, fuel fabrication, NPP designing and construction, mechanical engineering, heating and electric energy generation, decommissioning of nuclear facilities, UNF and RAW handling</p> <p>25 Slovakia (A)
Nuclear fuel supplies for Nuclear Units No. 1, 2 of NPP Mochovets, Nuclear Units No. 3, 4 of NPP Bognitsa</p> | <p>26 USA (A, A, D)
Development of Willow Creek Mine (Wyoming). Low-enriched uranium supply under the HEU-LEU Agreement. Commercial supplies of uranium products</p> <p>27 Tanzania (A)
Development of Mkuzhu River Field Development Project</p> <p>28 Turkey (D, A)
Preliminary work on construction of Nuclear Units No. 1-4 of NPP Akkuyu</p> | <p>29</p> <p>30</p> <p>31 France (P)
Supplies of uranium products</p> <p>32 Czech Republic (P, D)
Nuclear fuel supplies for Nuclear Units No. 1-4 of NPP Dukovany, Nuclear Units No. 1, 2 of NPP Temelin. Participation in the tender for construction of Nuclear Units No. 3, 4 of NPP Temelin</p> <p>33 Switzerland (P, P)
Supply of fuel from reprocessed uranium for NPP Gessgen and NPP Betsna. Supplies of uranium products</p> | <p>34 Sweden (P, P)
Supply of fuel from reprocessed uranium for NPP Oskarshamn. Supplies of uranium products</p> <p>35 Republic of South Africa (P)
Supplies of uranium products</p> <p>36 South Korea (P)
Supplies of uranium products</p> <p>37 Japan (P)
Supplies of uranium products</p> |
|--|--|--|--|--|---|---|---|--|--|--|

Portfolio of Projects for NPP Construction Abroad (number of nuclear units)

	Under Development	Planned for Implementation	Removed projects
2011	NPP Kudankulam (India) - 2 NPP Belene (Bulgaria) - 2 NPP Akkuyu (Turkey) - 4 NPP Tianwan (China) - 2	NPP Metsamor (Armenia) - 1 NPP Khmel'nitskaya (Ukraine) - 2 NPP NinhThuan (Vietnam) - 2 NPP Ostrovetskaya (Belarus) - 2 NPP Kudankulam (India) - 2 NPP Ruppur (Bangladesh) - 2	
Total			21
2012	NPP Kudankulam (India) - 4 NPP Akkuyu (Turkey) - 4 NPP Tianwan (China) - 2 NPP Ostrovetskaya (Belarus) - 2	NPP Metsamor (Armenia) - 1 NPP Khmel'nitskaya (Ukraine) - 2 NPP NinhThuan (Vietnam) - 2 NPP Ruppur (Bangladesh) - 2	NPP Belene (Bulgaria) - 2
Total			19

Dynamics of the Portfolio of Overseas Orders

	2012	2011	2010*
Portfolio of overseas orders for the decade (incl. export operations of the RF enterprises, HEU-LEU excluded), bln USD, incl.:			
NPP construction abroad	28.9	19.5	7.5
Uranium products	24.7	17.8	10.1
TVS and other operations	12.9	13.6	4.8
Portfolio of NPP construction projects abroad, number of nuclear units	19	21	12

* In 2010, the portfolio of orders was designed for the 5-year period.

 For details, see the e-version of the Annual Report

  For details, see the report of OJSC ARMZ for 2012

Results in the Markets of the Initial Phase of NFC

Natural Uranium Mining

In the reporting year, the natural uranium mining of ROSATOM State Corporation, taking into account foreign assets, reached 7,572 t, that is 7 % higher than in 2011. And the enterprises of Uranium One produced 4,710 t.

At present, the Corporation is implementing projects in nine countries, namely in Russia, Australia, USA, Canada, Namibia, Tanzania, Armenia, Kazakhstan and Mongolia. The key event in the reporting year was the approval of the application of the United Republic of Tanzania for a minor change in the borders of Selous Hunting Reserve by the World Heritage Committee of UNESCO, which removed barriers to the Mkuju River project development.

Nuclear Fuel Supplies

In 2012, supplies of nuclear fuel and its components were exported to 12 countries, namely, to the Czech Republic, Hungary, Slovakia, Finland, Bulgaria, Armenia, Ukraine, India, China, Sweden, Switzerland, and Great Britain.

 For details, see the e-version of the Annual Report

Export of Uranium product

In 2012, despite difficult market conditions related to the consequences of the accident at NPP Fukushima, ROSATOM State Corporation managed not only to maintain a record level of exports of uranium products throughout the past year, but also to increment the portfolio of overseas contracts for export of uranium products across the

decade, HEU-LEU excluded, by 39 % up to 24.67 bln USD.

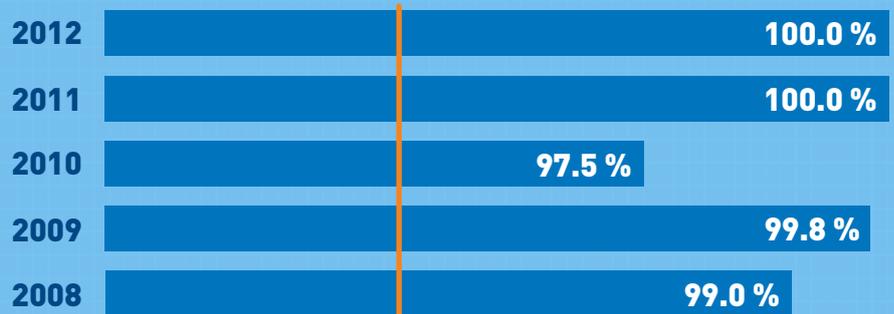
As part of the agreement between the RF Government and the US Government on using highly enriched uranium extracted from nuclear weapons (HEU-LEU Agreement) and under the contract between OJSC Techsnabexport and USEC Corporation, the low-enriched uranium of 864 t that was shipped during the reporting year contributed currency proceeds to the federal budget of Russia of more than 1 bln USD. In 2012, a supplement to the agreement was signed to specify a number of technical and logistical aspects in order to ensure the complete and timely execution of the HEU-LEU agreement in 2013. At the end of 2012, the program of low-enriched uranium supply for the 20 years as stipulated by the agreement had been 95 % fulfilled.

  For details, see the report of OJSC Techshabexport for 2012

Measures taken by OJSC Tekhsnabexport for increasing the level of customer satisfaction in the global market for the initial NFC phase

The level of customer satisfaction is the key performance indicator of OJSC Tekhsnabexport, the largest exporter of Russian NFC products and services in the global market. As part of quality monitoring, the Company assesses this indicator annually. According to the questionnaire survey, in 2012 the overall customer satisfaction index of the Company stands at 100 %, meeting the customer satisfaction target of no less than 95 % set by the Company for 2012.

Changes in the customer satisfaction index of OJSC Tekhsnabexport

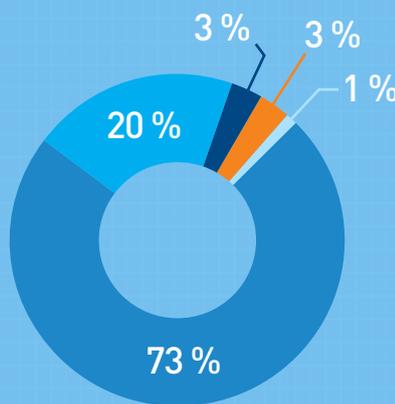


For details, see the report of OJSC Tekhsnabexport for 2012

Customer satisfaction target (95 %)

Distribution of Natural Uranium Supplies of ROSATOM State Corporation

- Russia
- North America
- Western Europe
- Southeastern Asia
- China



COOPERATION WITH INTERNATIONAL NUCLEAR COMPANIES

In 2012, ROSATOM State Corporation continued collaborating with major players in the international nuclear industry.

For details, see the e-version of the Annual Report

PROSPECTS FOR 2013 AND THE MEDIUM TERM

Foreign NPP construction

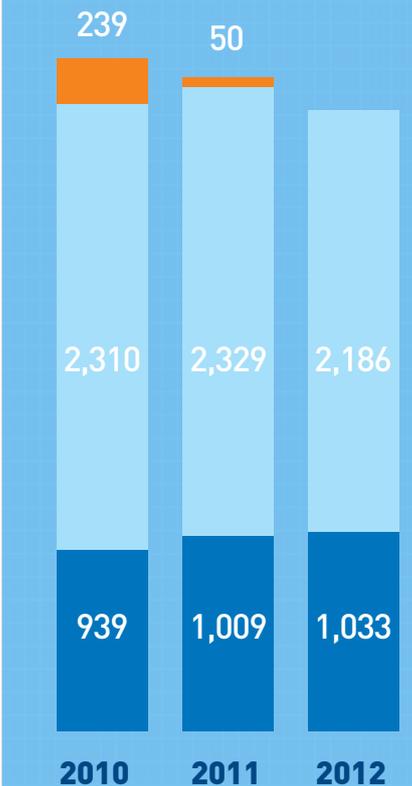
In addition to ongoing operations on NPP construction, the prospects of ROSATOM State Corporation for 2013, include:

- The power power start of Nuclear Unit No. 1 at NPP Kudankulam (India);

- Pouring of the first concrete of Nuclear Unit No. 1 Ostrovetskaya NPP (Belarus);
- Pouring of the first concrete of Nuclear Unit No. 4 at NPP Tianwan (China);
- Obtaining a license for generation and a permit for construction of NPP Akkuyu (Turkey);
- Opening of marketing offices of the Corporation abroad, incl. in the UAE, Brazil, Vietnam, India, China, Indonesia, the USA and Saudi Arabia.

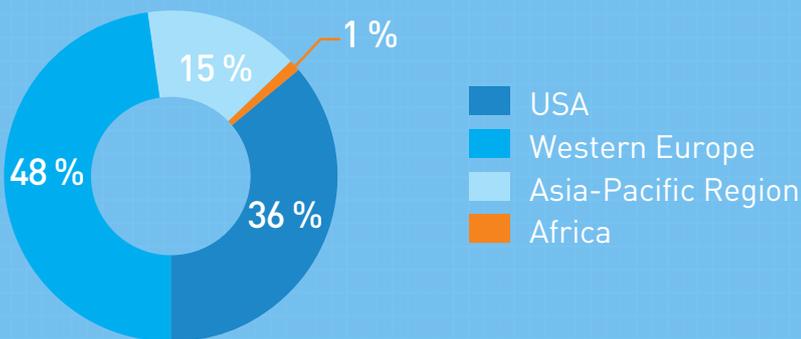
In the medium term, operations to develop new markets will continue, in particular the development of cooperation with Nigeria, Brazil, Saudi Arabia, and the Republic of South Africa is planned in order to promote Russian nuclear technologies.

Export of Uranium Products, mln USD



- HEU-LEU
- Commercial supplies of uranium products
- Others

Structure of Exports of Uranium Products by Regions, %



International Markets of the Initial Stage of NFC

Natural Uranium Mining

- The consolidation of 100 % shares of the Canadian public company Uranium One Inc.;
- Obtaining the necessary regulatory approvals of the United Republic of Tanzania to commence the construction of the engineering infrastructure of the Mkuji River project.

Nuclear Fuel Supplies

- The supply of new TVS-2M fuel for the 7th reload of Nuclear Unit No. 1 of Tianwan NPP;
- Negotiations and preparations for signing the contractual documents for fuel supply for the second stage of Tianwan NPP.

Supplies of Uranium Products

- Completed implementation of HEU-LEU Agreement to 2013;
- Working with energy companies to enter into new / renew existing contracts;
- Working to eliminate / mitigate trade restrictions in the regional markets (USA, EU);
- Establishing a system of guarantee warehouses abroad;
- The development of transport and logistic infrastructure (new shipping points, organization of our own TUK fleet and cleaning facilities for them);
- The diversification of raw uranium supply sources.

4.5. Nuclear and Radiation Safety and the Comprehensive Resolution of Outstanding Nuclear Legacy Problems

4.5.1. ENSURING NUCLEAR AND RADIATION SAFETY (NRS)



Sergey Raikov, Director of the Department of Nuclear and Radiation Safety, and Organization Licensing and Permitting Activities

What systems are there to ensure security in the nuclear industry?

The safety of nuclear and radiation hazardous objects is based on three pillars. Firstly, there is an effective regulatory framework, i.e. federal and other laws, rules and safety regulations, as well as guidelines, instructions and other documents. Secondly, there is the technical security of facilities. This is about the quality of design, construction, operation and decommissioning of the necessary systems for inspection, control and protection, as well as administrative and technical work on the physical protection of facilities. And finally, the most important aspect is the level of professionalism of staff and a corporate safety culture. By this, I mean work on the professional development, certification and

admission to work, and accounting for the human factor, special requirements for personnel health conditions, etc.

As to the specialized control systems, they are designed to cover all kinds of safety, for example, there is an industrial safety management system. Its aim is the prevention of accidents and incidents in facilities, as well as the localization and liquidation of the consequences of such accidents if they occur. In 2012, the Corporation adopted a unified industry-wide policy in the field of industrial safety. This is an important regulatory document, the main task of which is to ensure the protection of vital interests of the individual and society from accidents at hazardous production facilities and their consequences.

It should also be noted that last year, in accordance with changes in federal legislation, the Corporation was obliged to register hazardous production facilities and to maintain the departmental section of the public register of such facilities.

Are there any innovative technologies being applied to provide NRS?

First of all, I would say that it is the equipment of the existing security systems with modern information technologies which allows part of the work to be conducted under the supervision of automated mechanisms reducing human involvement, thus increasing the level of security.

One example is the development of automated systems for the security of transportation of nuclear materials, radioactive substances and products based on them. The latter process includes monitoring the location of vehicles, the status of technical means of physical protection and the radiation situation using the 'GLONASS' system.

Another example is the branch system of automated radiation monitoring. It allows the detection of changes in the radiation environment. It is also critical for the

assessment, prediction and prevention of the possible consequences of radiation exposure to workers, population and the environment. The data show the current radiation situation in the areas of ROSATOM facilities posing a nuclear and radiation hazard. It is very important that these data are publicly available on the website of the Corporation and that any person can see them in real-time.

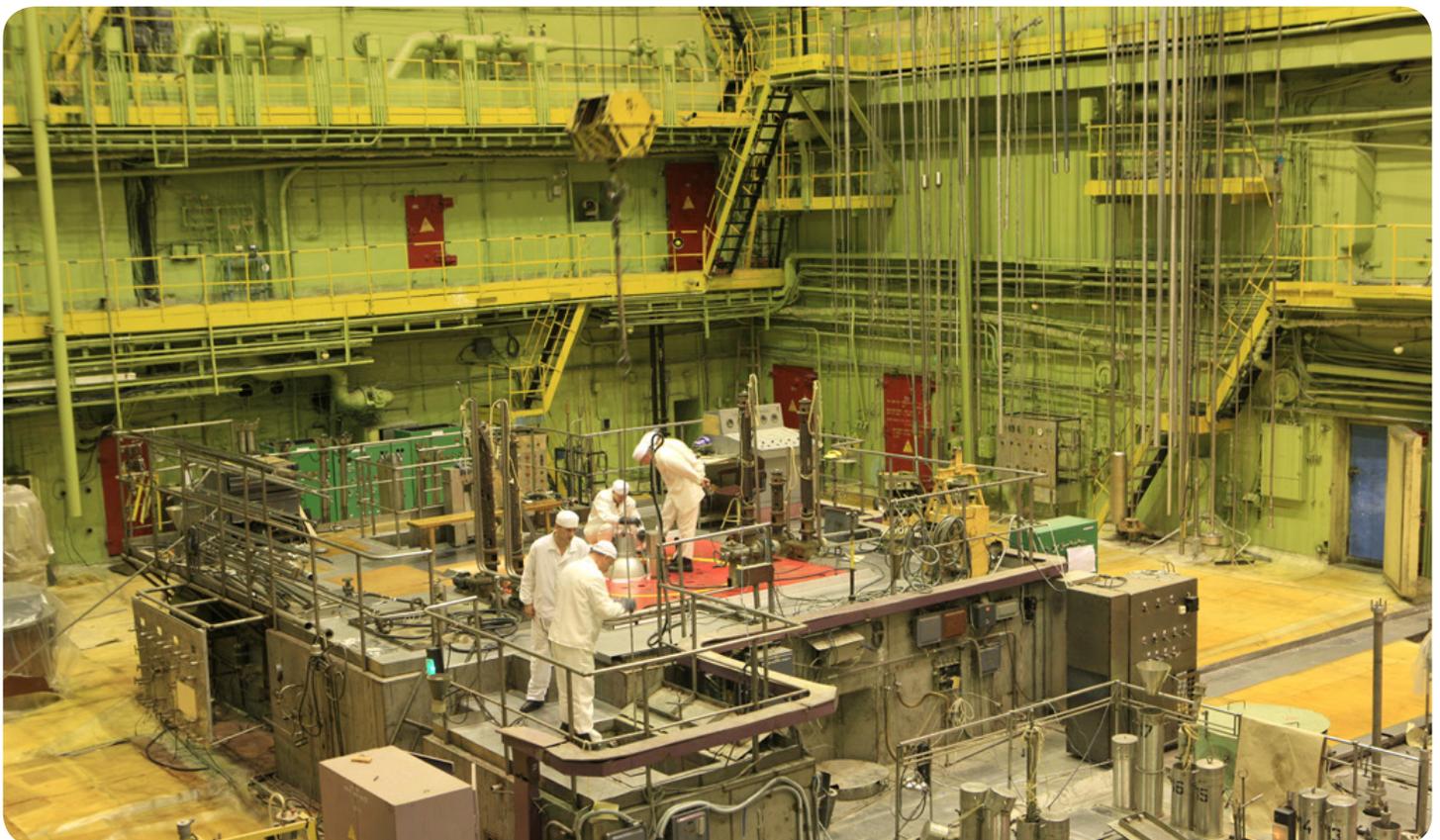
In general, in recent years, the industry has shown a significant increase in the standard of equipment of hazardous facilities (and technical devices) with electronic and computer control systems for the production process, and the process of training, education and certification of personnel, as well as the level of equipment of expert commissions on industrial safety using such systems, mainly for technical examination and diagnostics.

What are the main challenges in the field of nuclear and radiation safety and how are they solved?

There are two key challenges. The first one is related to the human resource. Just as in any industrial sector, the last two decades have led to a "subsidence" of the average age of workers. Therefore, the majority of the qualified staff are quite mature and

we face a certain shortage of personnel for NRS services. On the other hand, the career guidance programmes for high school and university students have yet much to do in order to motivate them to go into such a specific area as nuclear, radiation and environmental safety. And in general, the qualification of young professionals is poor. For this reason, we make a significant contribution to staff training and retraining.

The second difficulty is related to the quality of the existing legal and scientific and methodological documentation in the field of nuclear and radiation safety. For example, it is necessary to harmonize Russian legislation with the international one in the near future, using the legal practice. The latter should include the harmonization of requirements within the Common Economic Space and Customs Union.



Stress testing of RU NIIAR. The central hall of the SM research reactor

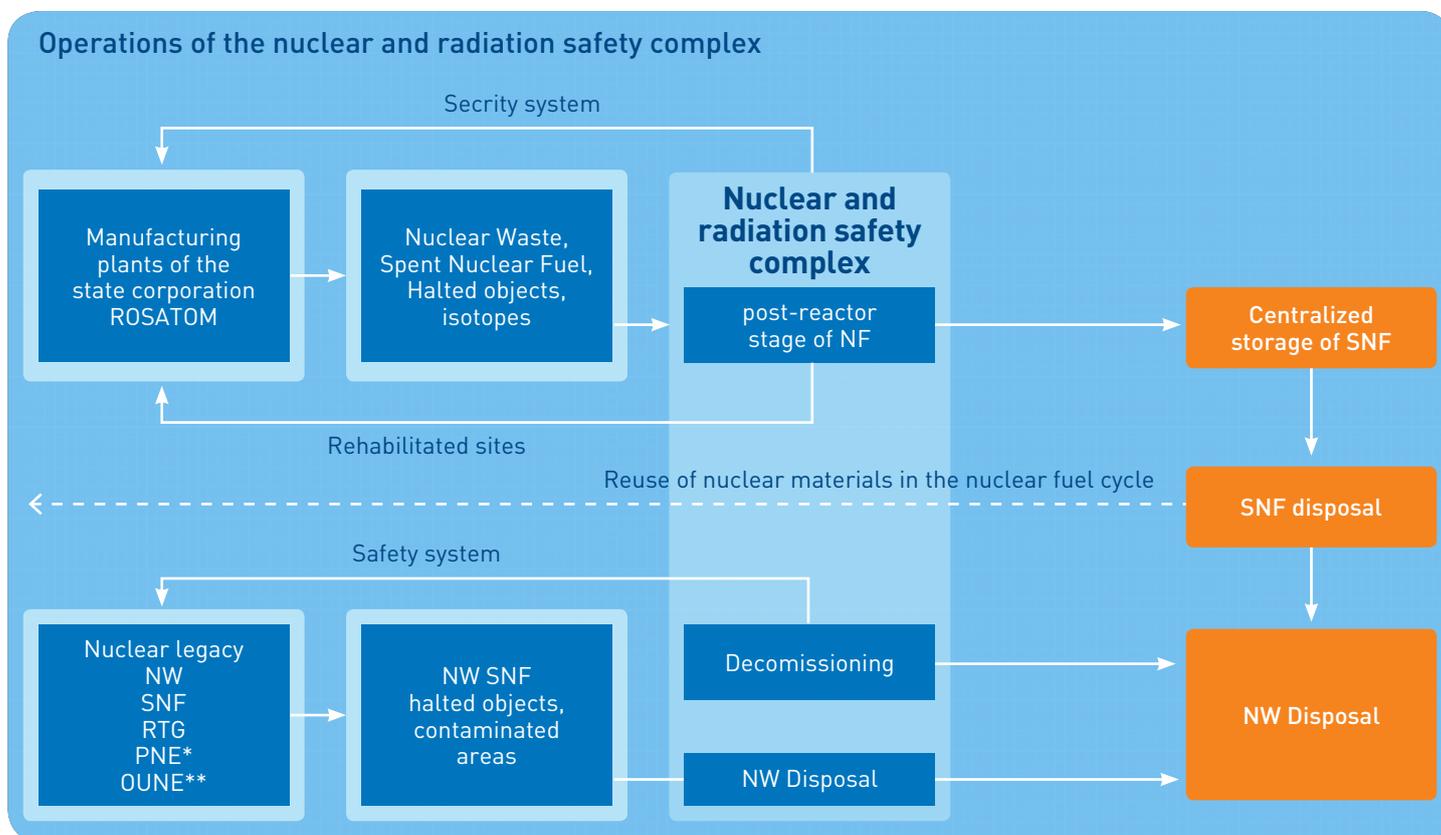
NRS CONTROL SYSTEM

The solution of problems posed in the medium and long term in order to ensure the nuclear and radiation safety of nuclear facilities, personnel, population and the environment is regulated by the

Long-Term Programme of Activities of ROSATOM Corporation.

The main activities of ROSATOM Corporation in the field of nuclear

and radiation safety are the following: ensuring the safe operation of nuclear facilities, and guaranteeing a comprehensive solution to nuclear legacy problems.



For details, see the e-version of the Annual Report

* PNE — Peaceful Nuclear Explosions

** OUNE — Objects Using Nuclear Energy

Development of Programs and Regulations in the Field of Nuclear and Radiation Safety

Results in 2012

- work on the formation of a preliminary list of measures of the federal target program "Nuclear and Radiation Safety in 2016–2020 and up to 2025"; a draft concept of the program continues to be in preparation;
- a program of activities for nuclear, radiation, industrial and fire safety at nuclear power plants was agreed for the year 2013. The program was prepared by Rosenergoatom Concern OJSC to be funded from the reserve that was formed in accordance with the Resolution of the Government of the Russian Federation No. 68 dated 30.01.2002;
- the bulk of the regulatory framework governing SNF handling under the United State System for Radioactive Waste Management was worked out.

For details, see the e-version of the Annual Report

NUCLEAR AND RADIATION SAFETY OF NUCLEAR FACILITIES

The safe operation of nuclear facilities is a top priority for ROSATOM Corporation. The achievement of goals in this area provides for the protection of workers, the population and the environment, minimizes radioactive releases, and prevents the possibility of incidents and accidents.

The state of security of nuclear facilities is evaluated based on the number and scale of deviations registered in their operation. In accordance with a scale developed by the IAEA, the International Nuclear and Radiological Event Scale (INES), events are classified into seven levels: at the upper levels (4–7), they are called "accidents"; at the lower levels they are called either "incidents" (levels 2–3) or "anomalies" (level 1). Those events that are not significant

in terms of security are classified as events below the scale — Level 0. Events that are not related to security are considered "Off scale".

For details, see the e-version of the Annual Report

Nuclear Power Plants

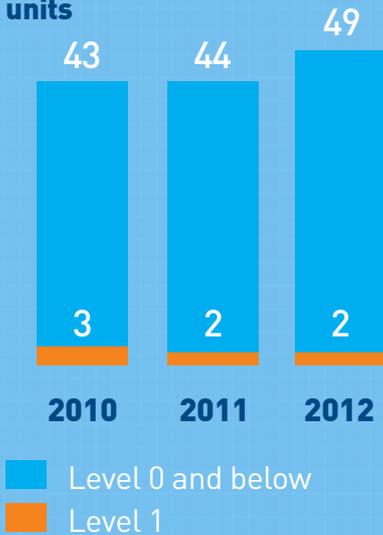
In 2012, at Russian nuclear power plants, there were no events of a level above "1" on the INES scale. In the recent 14 years, in the domestic nuclear power industry, there have been no events classified on the INES scale as either "accidents" or "incidents".

In 2012, 36 deviations of Level 0 and 'Off scale' were recorded at existing NPPs. In addition, 13 deviations were detected at the new power generating unit number 4 of the Kalinin NPP during the pilot operation*. At the time of the deviations in the work of the NPP, no exceeding of the allowable values of radioactive releases was detected.

Two deviations were classified as being of Level 1*, which means events without consequences for the population and the environment, namely at Leningrad NPP and at Balakovo NPP.

In 2012, in the operation of the NFC divisions of Mayak Production Enterprise 4 deviations were detected, which is twice less than in 2011. In addition, there was a deviation in the work of the

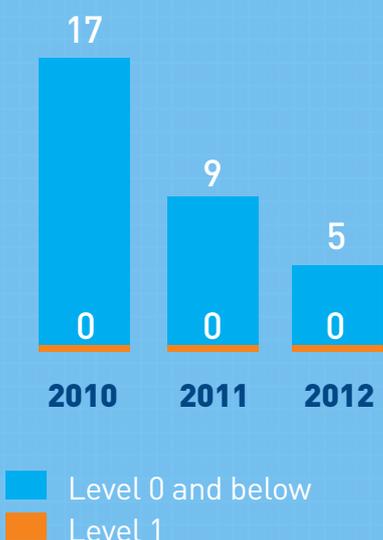
Dynamics of the number of deviations in the work of NPPs measured by the INES scale, units



For more details, please see the EAR as well as the report of Rosenergoatom Concern and the Safety Report of ROSATOM Corporation for 2012

NFC Facilities

Dynamics of the number of deviations at NFC facilities measured by the INES scale, units



reactor of Mayak Production Enterprise (i.e. deviations at the plant level). Events were classified as those 'Off INES scale'. None of these five deviations led to any radiation exposure to either personnel or the environment*.

Nuclear Research Plants

In 2012, there were 33 research nuclear installations (RNI) at different stages of the life cycle at 9 operating organizations of ROSATOM, i.e. 20 active installations, 1 under reconstruction, 5 in the preservation stages, 6 being decommissioned, and 1 under construction.

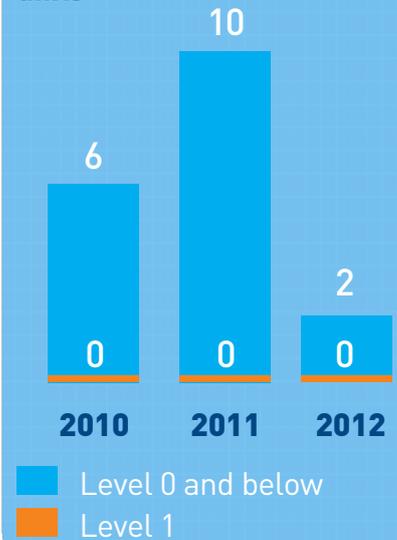
In 2012, there were two deviations of Level 0 measured by the INES scale. One occurred at the VK-50 active reactor of JSC State Scientific Centre - Research Institute of Atomic Reactors, and the second one concerned the IVV-2M active reactor at JSC Institute of Nuclear Materials. In both cases, the automatic shutdown of the reactor produced scram and irregularities were caused by human error. Deviations did not result in exceeding the limits or safety conditions of RNIs or any other facilities located on the premises of the operating organization.

INDUSTRIAL SAFETY

During the reporting period, there were no events classified as "accidents at hazardous production facilities" at any organization of the Corporation.

In 2012, safety management systems were developed for the hazardous production facilities of the industry organizations (as of December 31, 2012, more than 1,000 of such facilities are being operated*). ROSATOM's Unified Industrial Policy in the Field of Industrial Safety was approved.

Dynamics of the number of deviations in the work of RNIs measured by the INES scale, units



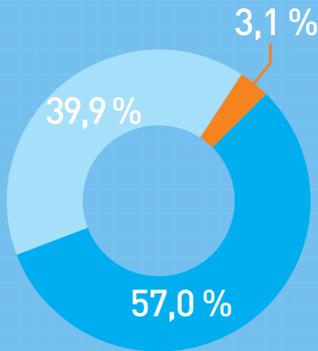
ROSATOM has also been involved in the preparation of proposals in the draft law "On Amendments to the Federal Law "On the Industrial Safety of Hazardous Production Facilities" and other legislative acts of the Russian Federation, the main aim of which is a comprehensive improvement of legislation in the field of industrial safety of hazardous production facilities.

PHYSICAL PROTECTION OF FACILITIES. CONTROL AND ACCOUNTING OF NUCLEAR MATERIALS

Given the current security requirements, the Government of the Russian Federation and the State Corporation "ROSATOM" are paying special attention to the implementation of practical measures aimed at improving the anti-terrorist protection of nuclear hazardous

In 2012, commission checks on the operability of alarm systems, readiness for evacuation measures in case of emergency, personnel actions upon hearing the alarm were conducted without warning in the organizations of the Corporation in cooperation with the administrations of closed cities and towns. Training sessions were held, including special tactical exercises on how to deal with crises, "The actions of management and the strength of the systems of prevention and liquidation of emergencies at facilities in case of a radiation accident".

Distribution of hazardous production facilities by type



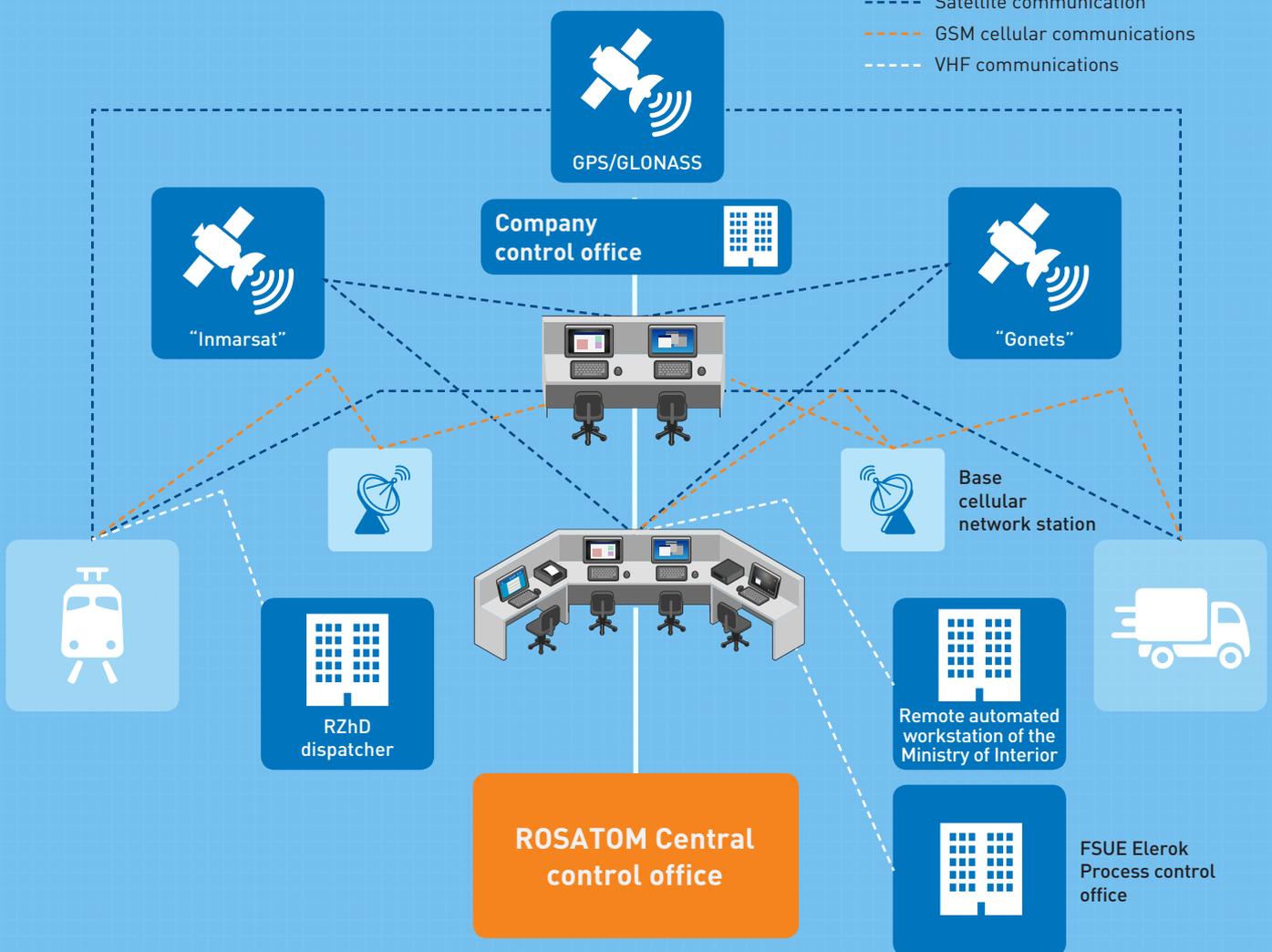
- Type 3.1** — facilities containing hazardous substances at a quantity equal to or greater than the amounts specified in Annex 2 of the Federal Law "On the Industrial Safety of Hazardous Production Facilities" (facilities that require the development of a declaration of industrial safety).
- Type 3.2** — facilities where hazardous substances are handled at an amount less than the maximum amount specified in Annex 2 of the Federal Law "On the Industrial Safety of Hazardous Production Facilities" (chemically hazardous facilities and petrochemical facilities).
- Type 3.3** — facilities that belong neither to type 3.1 nor type 3.2 and that have signs of danger as specified in paragraphs 2-5 of Annex 1 to the Federal Law "On the Industrial Safety of Hazardous Production Facilities".

facilities and guaranteeing the security of nuclear and other radioactive materials.

There is a full range of work on projects and activities of FTP, as well as work financed by the trust reserve fund of ROSATOM and through international cooperation.

In 2012, 16 audits of the conditions of physical protection at organizations were conducted within the industry*. The level of security and physical protection as a whole meets the requirements. There were zero cases of theft of nuclear materials or unauthorized intruders in protected areas intending to carry out acts of sabotage*.

The System of Physical Protection



EMERGENCY PREPAREDNESS AND RESPONSE

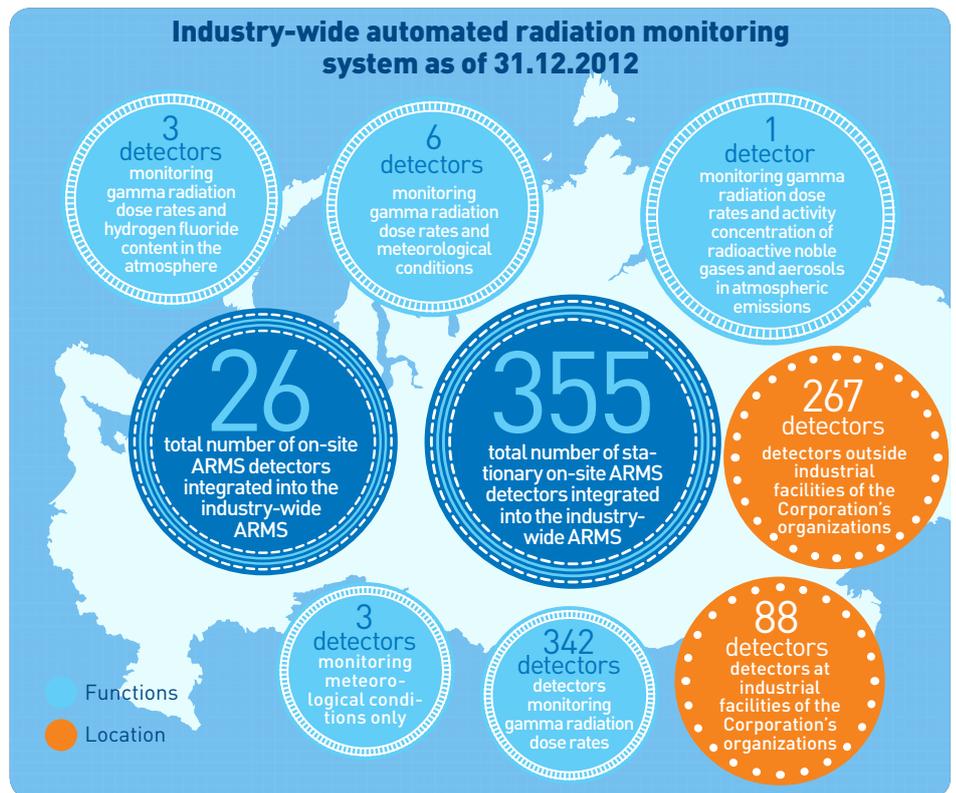
In order to organize work for the prevention and elimination of emergency situations in the nuclear industry, a functional subsystem to prevent and eliminate emergencies (OSCHS) of the Unified State System of Prevention and Liquidation of Emergency Situations has been developed at ROSATOM's organizations.

Results of work of OSCHS

- measures of the FTP "Nuclear and Radiation Safety in 2008 and up to 2015" implemented, including the reconstruction of the FSUE SCC ROSATOM aimed at improving components of the industrial control system and the empowerment of information and analytical support in the field of nuclear and radiation safety, and elimination of accidents and their consequences;
- the implementation of a sectoral programme aimed at the improvement of fire safety and the successful upgrade of fire protection systems at nuclear power plants;
- plans were approved to improve security at the organizations of the Corporation;
- organizational and personnel changes were made in the bodies of constant and daily management of OSCHS; a new Commission was approved on the prevention and elimination of emergency situations and on fire safety;
- plans of civil defense were revised in accordance with the instructions of the Government of the Russian Federation and the Order of the Russian Emergencies Ministry;
- an educational and practical seminar on the "Topical issues of the state and improvement of the system of prevention and liquidation of emergency situations" was conducted together with large-scale exercises; the seminar was attended by more than 100 employees.

Control Measures to Prevent Emergencies

In 2012, the committees of the Corporation, the Russian Emergencies Ministry, the Ministry of Natural Resources of the Russian Federation, the Federal Service for Ecological, Technological and Nuclear Supervision, the Office of the State Supervision of Nuclear and Radiation Safety of the Ministry of Defence and other government agencies conducted monitoring activities in the field of disaster prevention and protection of the population and territories from emergency situations in respect of 637 objects of the Corporation's organizations.



Of these, the committees of the Corporation held 97 scheduled safety audits at organizations operating nuclear and radiation hazardous facilities, including FSUE Federal Scientific Production Center — Sedakov Scientific Research Institute of Measuring Systems, the Far Eastern Center for Radioactive Waste Management (the branch of FSUE RosRAO, JSC Ural Electrochemical Integrated Plant, JSC CMP, JSC PA Electrochemical Plant, and the Belayarsk and Kalinin NPPs).

For details, see the e-version of the Annual Report

INDUSTRIAL AUTOMATED RADIATION MONITORING SYSTEM

One of the most important elements of the system of state control over the radiation situation in the areas where nuclear and radiation hazardous facilities are located is a branch automated radiation monitoring system (ARMS) working within the framework of the Russian Unified State Automated Radiation Control System. The branch ARMS consists of ARMS at the facilities of enterprises and organizations of the nuclear industry. The total number of ARMS at facilities is 355 (as of December 31, 2012). The outcomes of measurements over many years show that during normal operation, the contribution of NPPs to the measured radioactive background is negligible and the radiation situation in the

field of measurement corresponds to the natural radioactive background.

The results of monitoring conducted by ROSATOM's ARMS are publicly available in real time on the website www.russianatom.ru.

ARMS are constantly being improved in order to meet the requirements to ensure environmental safety.

ENSURING A SAFE WORKING ENVIRONMENT

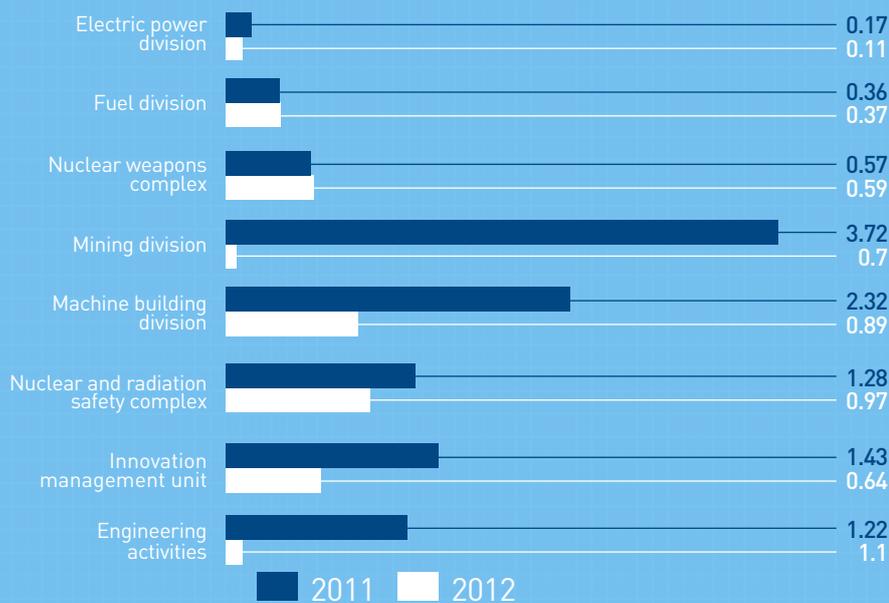
Occupational Injuries

ROSATOM and its organizations work towards the reduction of occupational injuries and the impact on staff occupational hazards.

The incidence of industrial injuries per 1,000 employees in the nuclear industry was 0.57[•], lower than during the same period in previous years and significantly (more than 3.5 times) than that in Russia as a whole. In 2011, the figure was 0.82 and the average value of the rate for previous 5 years is 0.81.

The most significant results were achieved by JSC ARMZ due to a five-fold reduction of the injury rate at JSC Priargunsky Industrial Mining and Chemical Union. The number of accidents at JSC Atomenergomash was halved. Also, a significant reduction was achieved by OJSC ZIO-Podolsk, FSUE GNC RF — FEI, JSC UEMZ[•].

Distribution of the number of casualties per 1,000 employees (injury rate)



KPIs of managers responsible for compliance with regulations in the field of occupational safety and health include the so-called indicator LTIFR, i.e. the frequency rate of injuries leading to temporary disability, which is used in international practice as one of the key indicators of the state of health and safety. A comparison between the branch LTIFR with the indicators of the largest Russian companies shows that injuries in the nuclear industry represent one of the lowest levels. There is a constant decrease in total injuries; in 2012, the lowest rate since a decade was recorded.

Many companies within the industry seek a further increase in the safety level as part of an integrated and systematic approach to health and safety, as well as the transition to a system that provides for the timely identification and evaluation of occupational hazards and risks. A number of organizations in the industry (e.g. JSC Machine Building Plant, JSC Chepetsky Mechanical Plant, JSC Novosibirsk Chemical Concentrates Plant) confirmed compliance of their organizational health and safety management system with international standards (OHSAS 18001) and carried out their own procedures to identify hazards, assess risks, and manage them.

This year, as an employer, we allocated personal funds amounting to no less than 0.5% of the cost of production, which is 2.5 times more than the rate of the Labor Code of the Russian Federation.

The most important element of the industrial OSH management system is the participation of employees in safety man-

agement, their involvement in prevention activities by collecting comments and suggestions on the organization of work in the field of occupational safety, and further application of these suggestions for the development of measures to improve working conditions and safety. The mechanism of this interaction between the employers and the labor union is reflected in the paragraph "Organizational Health and Safety" in the Branch Agreement on nuclear energy, industry and science for 2012–2014.

The rights of employees to work safely are ensured through the direct participation of authorized officials (the Trustees),

and members of the committees (commissions) for the protection of labor.

To stimulate the activities of employees who are responsible for the protection of labor, employers and the main labor unions organized a competition for the title of "Best Employee for the safety of the nuclear industry". At the end of the competition, the title "Best Employee for the safety of the nuclear industry" was awarded to 27 members of staff.

Accidents

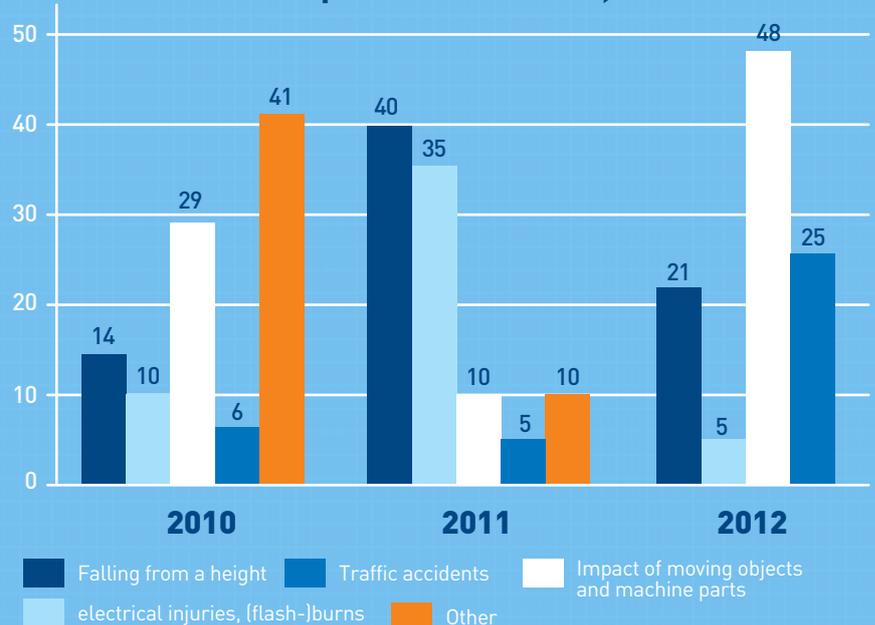
In 2012, the number of accidents with fatalities decreased in the industry; in the reporting year, there were three cases (with 7 in 2011 and 4 in 2010).

Characteristics of Working Conditions

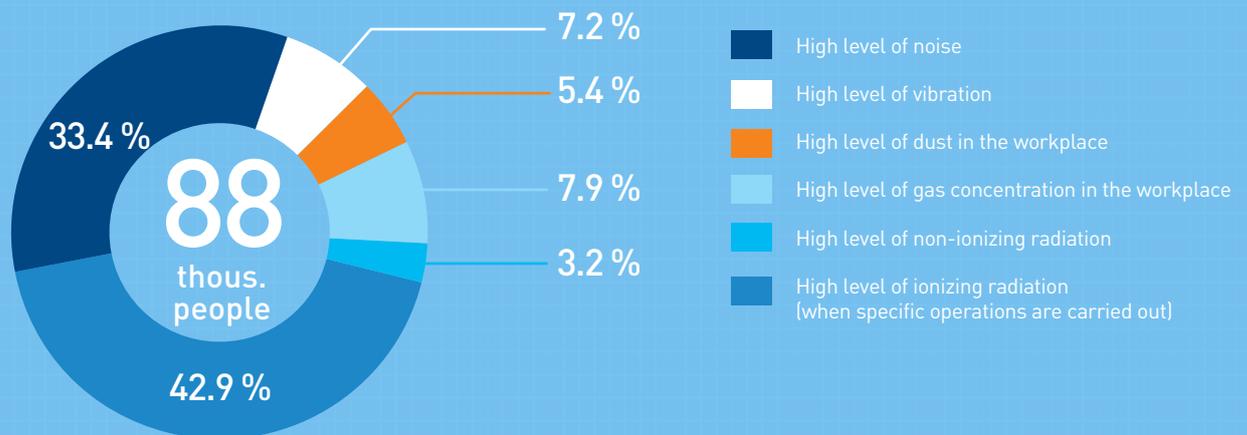
Work on the attestation of workplaces has been continued. In total, around 70% of organizational working places have been certified. In 2012, the total number of people employed in conditions that do not meet the health standards of working conditions in organizations of the industry amounted to about 88 thousand people. Following the Branch Agreement on nuclear energy, industry and science for the years 2012–2014, nuclear industry employers provide funding for the improvement of working conditions and safety in their operations amounting to at least 0.5% of the cost of production.

All the enterprises of the Corporation conduct medical examinations of personnel for the timely detection and

The Main Types of Accidents with Severe and Fatal Consequences in 2008-2012, %



Employees working in conditions that do not meet the health standards of working conditions in organizations of the industry in 2012, % of total employment



prevention of cases of occupational disease. Most cases of occupational diseases consisted of chronic respiratory diseases and vibronoise pathologies and etiological diseases. The most common factors that influence the number of occupational diseases are increased levels of noise and vibration in the workplace, as well as gas contamination of air and dust in the work area.

Radiation Exposure of Personnel of the Corporation

In 2012, the industry enterprises continued systematic work aimed at ensuring the requirements of the Standards of Radiation Safety SRS-99/2009, Basic Sanitary Rules for Radiation Safety BSRRS-99/2010 and other regulatory documents. Most enterprises meet these requirements.

Dynamics of average annual doses to personnel, mSv



Distribution of personnel of category A by range of effective doses received during the year



Radiation Doses to Personnel

In 2012, 68,393 employees of category A¹³ of ROSATOM's organizations were subject to radiation control (in 2011, there were 68,461 people). In the last decade, the radiation dose to staff has shown a distinct downward trend.

In 2012, no cases exceeding the dose limits determined in SRS-99/2009 were revealed. Over the last 5 years, no individuals with a total effective radiation dose of more than 100 mSv have been identified*.

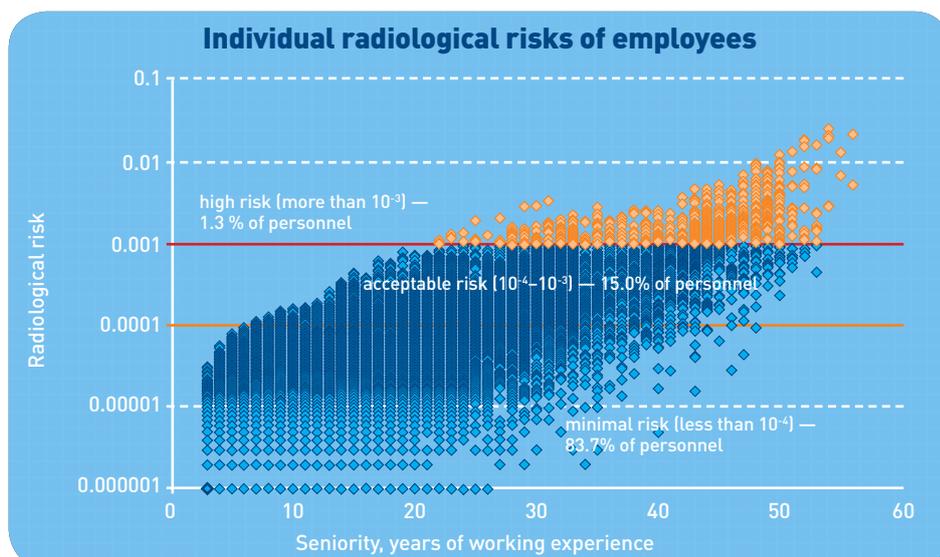
Assessment of Individual Risks of Personnel

In 2012, the companies of the industry continued to implement the ARMIR system (version 5.0) – Automated system to measure individual radiation risks.

In a special form for statistical reports, 10-RTB-5 enterprises show the number of employees of Group A whose individual radiation risk is more than 10-3 (according to section 2.3 of SRS-99/2009). Individual data handling was conducted with the help of the ARMIR system for 62,497 people (in 2011, it was 61,893 people), accounting for 91.4% (in 2011, 90.4%) of people under individual radiation control. 865 employees faced an individual radiation risk exceeding the value of 3.10 (in 2011, 866 employees were at a higher level of risk, and 843 members of staff in 2010). There are almost no changes to the relative number of people with a high individual risk, and this index is at the level of 1.3%.

¹³ Measures are being taken to ensure compliance of the category with the Standards of Radiation Safety SRS-99/2009 and Basic Sanitary Rules for Radiation Safety BSRRS-99/2010.

The average value of individual radiation risk was $0,77 \cdot 10^{-4}$. The maximum risk was 0.012. The vast majority of employees (90% male staff and 93% female personnel) are working within the limits of an acceptable occupational hazard. Increased individual lifetime risk is observed only among the veterans of the nuclear industry who received the bulk of the radiation dose in the initial period of the development of nuclear technology.



4.5.2. RESOLUTION OF ACCUMULATED NUCLEAR LEGACY PROBLEMS



Oleg Kryukov, Head of the Department of State Policy in the Field of Radioactive Waste, Spent Nuclear Fuel and Decommissioning of Nuclear and Radiation Hazardous Facilities

In 2011, the a federal law on the handling of radioactive waste was passed. How do you assess the results of 2012, given the implementation of this law?

Federal Law 190 "On the Handling of Spent Nuclear Fuel" establishes the requirements for a uniform national system of radioactive waste handling (USS RWH). The main principle of the system is the mandatory disposal of radioactive waste. In 2012, 12 normative legal acts were adopted at the level of the Government of the Russian Federation, including the one determining a National Operator for radioactive waste management that would be responsible for the final stages of radioactive waste disposal in Russia. The processing and preparation of waste for disposal will be managed in market conditions either by specialized organizations or by the producers of radioactive waste themselves.

The main tasks of the National Operator will be as follows: to add a number of existing waste disposal facilities to their structure, to ensure their safe operation, to start works on the creation of an infrastructure for radioactive waste disposal, to ensure state registration of waste. Works on the inclusion of the existing facilities for the deep injection disposal of liquid radioactive waste into the structures of the National Operator have begun, e.g. at FSUE MCC, OJSC SCC and the JSC State Scientific Center — the Research Institute of Atomic Reactors.

The plan to develop the infrastructure of facilities for radioactive waste disposal includes an underground laboratory in Nizhnekansky granitoid array (which is the current territory of MCC). Public hearings were held, and the project was approved. This area is favorable for placing disposal facilities in terms of the geological conditions that are good for the insulation of the most 'challenging' waste, i.e. high-activity and long-living life waste.

Work has begun on the primary registration of radioactive waste and their storage facilities. A resolution of the Government of the Russian Federation on the primary registration has been adopted; the terms of works have been defined, i.e. by the end of 2014. This kind of registration will lead to a state register of radioactive waste and the state cadastre of radioactive waste storage facilities, which is a source data base for the formation of objectives and plans of the USS RWH.

The Russian Ministry of Natural Resources, as the body authorized to set tariffs for the disposal of waste, have received, for their approval, both investment and production programs of the National Operator. On the

basis of these programs, a tariff model and tariff rates will be established for the disposal of waste.

What is the current situation with the nuclear legacy of the industry? What has been achieved in addressing this issue in recent years?

There have been a great many problems with the "nuclear legacy" in the industry. Firstly, there is a significant 'legacy' of spent nuclear fuel and radioactive waste, as well as a large number of nuclear and radiation hazardous facilities that require decommissioning. Secondly, there is a the lack of both an infrastructure for SNF handling which would inhibit the growth of accumulated spent fuel in the country, and of a radioactive waste disposal infrastructure. Thirdly, there is no full-fledged legal framework within which a modern model of the relationships between economic entities, governments and regulators of the final stage of the life cycle could be formed. Finally, we must note the fact that in recent years, the lack of attention to issues related to the final stage of the life cycle has led to a critical state of some "legacy" facilities or their non-compliance with new, more modern regulatory requirements.

It is in this context that the first federal target program "Nuclear and Radiation Safety in 2008 and for the period up to 2015" (FTP NRS) has been developed and put into practice. It has been created in order to address current acute problems and contains a list of priority works in the field of handling SNF and radioactive waste, and decommissioning. In fact, it is a program containing

urgent measures to prevent possible incidents and reduce potential risks.

One of these facilities was FSUE Mayak Production Enterprise. Under the federal program, works have been performed in two directions, i.e. the improvement of safety conditions and reduction of the potential risks of storing the accumulated liquid radioactive waste, and the reduction of disposal of liquid radioactive waste into open water. Within the framework of the implementation of FTP, a combined sewage system has been put into operation, a set of cementing and vitrified waste complexes has been created, works aimed at the elimination of discharges into the Techa cascade and preservation of open water in reservoirs B-9 and B-17 have been performed. It can be stated that the most critical issues, such as water overflows in Techa and the destruction of the closing dam, have been eliminated, and further work may be continued as planned.

Significant progress is related to “the widened bottlenecks” in the handling of spent nuclear fuel. First of all, this concerns the matter of filling 90% of the on-plant storage facilities with spent nuclear fuel from the RBMK. The commissioning of the first building line of a dry storage facility at the FSUE MCC and the development of SFA disassembling complexes allowed for

intake of the first batch of RBMK SNF for centralized storage as early as 2012. Also, reconstruction of the wet storage facility for spent fuel assemblies of VVER reactors was carried out and its capacity was increased. Those facilities that are either already built or under construction will be sufficient to store the entire volume of spent nuclear fuel from Russian nuclear power plants.

As of the beginning of 2013, an inventory of 65% of the total number of facilities to be decommissioned was carried out and the same figure of 65% of the total number of facilities were prepared for decommissioning. Almost a quarter of the total number of facilities was liquidated. 75% of average RTGs were decommissioned.

The elimination of nuclear installations in Moscow is of great importance: a sub-critical bench of the Scientific Research Institute of Chemical Technology was eliminated, practical work was performed on the project of decommissioning of the unit B of the A. A. Bochvar High-Technology Research Institute of Inorganic Materials, and of the research reactors MR and RFT at the Kurchatov Institute.

Risks associated with the presence of “abandoned” facilities and radioactively contaminated areas have also declined

markedly. A significant amount of rehabilitation work has been done and continues to be performed at the premises of the Podolsk factory of nonferrous metals, in areas contaminated as a result of peaceful nuclear explosions. The facilities of a hydrometallurgical plant and uranium mines 1 and 2 of the former state-owned enterprise “Diamond” (Lermontov, Stavropol Territory) have been closed down temporarily on the premises of the former Kirov-Chepetsk chemical plant for the processing of uranium raw materials. By the end of 2012, a radioactively contaminated area of 200,000 m² was rehabilitated.

What priority works are being performed to ensure the NRS for 2013 and in the medium term?

The priority is to develop FTP NRS for the period of 2016-2025. Program development has been initiated last year, and the main work will be done in 2013. It is planned to interact actively with the federal authorities as the co-executors of the program, and with all organizations of the industry that have any facilities of “nuclear legacy”. A serious analysis of all reported work will be carried out. When the FTP has been developed, it will eventually significantly affect the overall image of the industry, its cost-effectiveness and public acceptability of its activities.

One of the main areas of NRS activities is to solve the problems of the “nuclear legacy” stemming from the prior years’ economic activity and defense industry in previous years. As a result of work on the creation of nuclear weapons and nuclear power plants, the USSR accumulated large amounts of radioactive waste and spent nuclear fuel that has not been securely disposed or recycled.

More than 90% of liquid radioactive waste of the “nuclear legacy” (of the total accumulated volume of 427,800,000 m³) are stored in special tanks and reservoirs of FSUE Mayak Production Enterprise and of OJSC SCC. This is low-level radioactive waste. The volume of spent fuel accumulated at the beginning of 2012 was about 22.7 thous. t (in terms of heavy metals). In addition, as a result of several serious accidents (first of all, at FSUE Mayak Production Enterprise in 1957) some areas were contaminated with radioactive waste. A separate contribution to the contamination of land was made by nuclear weapons tests conducted during the time of the “cold war”. After the collapse of the Soviet Union, Russia faced a new problem in the area of “legacy”, i.e. the utilization of nuclear weapons in accordance with international agreements.

During the mid-2000s, the leadership of the country and the nuclear industry decided that no further postponement to address the problems of the “nuclear legacy” was possible. The 2007 federal program “Nuclear and Radiation Safety in 2008 and for the period up to 2015” provides for a set of measures designed to reduce the “nuclear legacy”.

In 2011, the Federal Law 190 “On the handling of radioactive waste and on amendments to specific legal acts of the

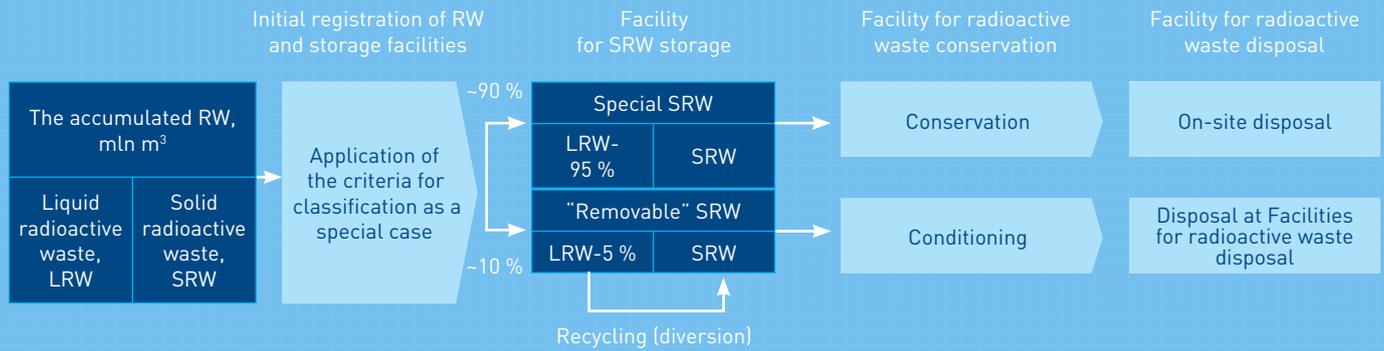
Russian Federation” was adopted, which would create a legal framework for the complete elimination of the problems of the “nuclear legacy” in the long term.

In 2012, the Russian Government approved the sub-program “Nuclear and Radiation Safety for 2016 and for the period up to 2020” (FTP NRS-2) within the framework of the state program “Development of the Nuclear Energy Industrial Complex of the Russian Federation”.

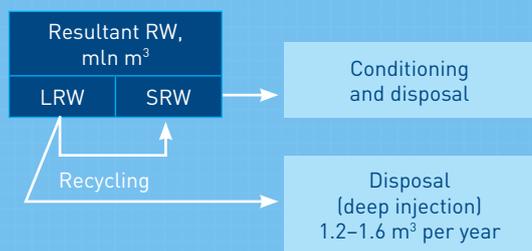


Breakdown of RW handling

1. The accumulated RW (before July 15, 2011)



2. Resultant radioactive waste (post 15.07.2011)



1. SRW is stored in 1,170 vaults.
2. LRW is stored in open tanks and pools.
3. Complex objects:
 - Lake Karachai;
 - Techa reservoirs (Mayak);
 - LRW storage pools (SCC, MCC);
 - Storage facilities for tailings and crushed ore at Priargunsky Industrial Mining and Chemical Union, combustion plants and Novosibirsk Chemical Concentrates Plant;
 - The old former places of SRW burial (Mayak, SCC, MCC).
4. Less than 30% of the recyclable RW has been recycled.

For details, see the e-version of the Annual Report

FORMATION OF A UNIFORM NATIONAL SYSTEM OF RADIOACTIVE WASTE MANAGEMENT

As part of the Federal Law "On the handling of radioactive waste", a Uniform National System of Radioactive Waste Management is being developed in Russia.

Results in 2012

- public hearings were held, on the findings of the environmental impact assessment with a positive result for the project "Establishment of priority facilities for final radioactive waste isolation in the Krasnoyarsk region (Nizhnekansky array)";

- construction of the first building line of radioactive waste disposal facilities initiated on the premises of the JSC Ural Electrochemical Plant with a total volume of 20,000 m³;
- an experimental model of a set of dehydration of salt melting generated by the concentration of liquid radioactive waste at nuclear power plants;
- a pilot plant set up for processing crushed ore from uranium and ore factories;
- work on the design of systems for processing radioactive waste in the North-West region (Murmansk region) and at the Kursk nuclear power plant performed;
- checks on the compliance of the technology of deep LRW disposal at landfills for injection into reservoirs in compliance with the IAEA safety standards.

Placing Locating Facilities for the Final Disposal of Radioactive Waste

Part of the work on the deployment of UNS UNF is the development of "Territorial planning schemes in the energy sector for the placement location of radioactive waste disposal facilities". The scheme provides for the placement of final disposal facilities in 17 regions of Russia. The capacity of each facility at a federal level is not less than 100,000 m³. The total capacity of all disposal facilities of federal importance is not less than 1.5 mln m³.

The results of the preliminary assessment of the environmental impacts of disposal facilities at all stages of the life cycle are as follows: the dumping of radioactive water into the open hydrographic network is impossible; no negative impact on surface water and groundwater in the soil and geological environment, on vegetation, wildlife and people has been detected; the calculated ground-level volumetric activity and doses to the public from radioactive aerosol emissions from the disposal facilities does not exceed the established standards of public exposure.

Target	2012 plan on an accrual basis	2012 actual
Commissioning of RW storage capacity, 10 ³ m ³	12	100 %
Activity of RW transferred to a safe state, 10 ¹⁸ Bq	11	86 %*

* deviation due to the failure of the electric furnace 4 at Mayak, the furnace cannot be repaired, the forecast of the index for 2015 is 100 %

For details, see the e-version of the Annual Report

For the development of territorial planning schemes, data on the existing facilities in the territory of Russia has been collected, the basic characteristics of the infrastructure of the Uniform National System of Radioactive Waste Management have been determined, the structural-tectonic scheme of the planned areas for the development of facilities for the final disposal has been elaborated for mathematical modeling of the spread of contaminants, the location of disposal facilities to be developed has been identified.

As of December 31, 2012, the total accumulated SRW in the organizations of ROSATOM was about 73 mln t, the volume of LRW was 427 mln m³.

UNF HANDLING

Results in 2012

- 182.4 t of spent nuclear fuel was exported for recycling at FSUE Mayak Production Enterprise, with 108.23 t of spent nuclear fuel recycled (and 4.4.4.)
- 328.25 t of SNF from VVER-1000 and RBMK were taken out and transferred for further centralized storage at the FSUE MCC;
- work was performed in preparation for the removal and assembly of a batch of blocks DAV-90 at the FSUE MCC and OJSC SCC to be sent to Mayak Production Enterprise (and 4.1.7); for the first time in the past 30 years, the exportation of irradiated blocks DAV at Mayak Production Enterprise was carried out;
- construction of the "dry" storage chamber for SNF from VVER-1000 and RBMK-1000 (full development) continued (and 4.1.1.); the facility will be commissioned in 2015;
- SNF weighing more than 500 kg (heavy metals) was exported for recycling (as part of the fulfillment of international obligations of the Russian Federation to return the spent fuel of Russian (Soviet) origin from the sites of research reactors in Ukraine, Poland, Romania and Uzbekistan). Under international treaties, circa 110 t of spent nuclear fuel was exported for processing from nuclear reactors in Ukraine and Bulgaria.

RW accumulated as of December 31, 2012

Types of RW	SRW, mln t	LRW mln m ^{3*}
Low-level waste	72,500	425,420
Intermediate-level waste	0,599	2,040
High level waste	0,013	0,035
Spent sealed radioactive sources	0,006	-
Total	73,118	427,495

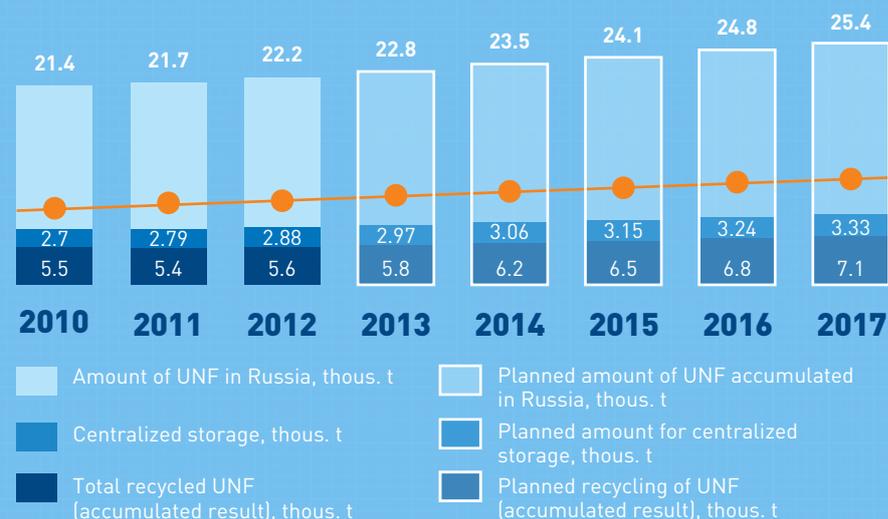
* excluding liquid waste pumped into underground aquifers

Resultant RW as of December 31, 2012

Types of RW	SRW, mln t	LRW mln m ³
Low-level waste	1,380	1,850
Intermediate-level waste	0,005	0,182
High level waste	0,0003	0,024
Total	1,3853	2,056

Target	2012 Plan on an accrual basis	2012 Actual
Commissioning of the spent fuel storage facilities, 10 mln t	16,7	100 %

The accumulation and processing of UNF



In 2012, work continued on improving the legislation on the handling of spent nuclear fuel. The Scientific and Technical Council approved a package of proposals to improve the legislation regulating the import of spent nuclear fuel to Russia.

THE DEVELOPMENT OF DECOMMISSIONING OF NUCLEAR AND RADIATION HAZARDOUS FACILITIES AND THE SOLUTION OF PROBLEMS OF THE NUCLEAR LEGACY IN THIS FIELD

In accordance with the industry-wide system of the decommissioning of nuclear installations, radiation sources and storage facilities, work on decommissioning is conducted in two main scenarios:

- "liquidation" (immediate or deferred dismantling)
- "the creation of a final disposal facility".

60 of the 1,000 properties on the database of nuclear and radiation hazardous facilities are either being prepared for decommissioning or are being decommissioned. By 2015, the decommissioning of 44 facilities is planned, and of another 54 facilities in 2020, and of 57 more in 2025.

Results in 2012

- assessment of the decommissioning obligations of the Corporation's enterprises that are not part of OJSC Atomenergoprom;
- a strategy for decommissioning the radioactively hazardous facilities of OJSC TVEL is being developed;
- the launch of a project to create a corporate information system for decommissioning, whose purpose is information support and support for the centralized control system, launched;
- an inventory of nuclear and radiation-hazardous facility 169 is being carried out, 123 nuclear and radiation-hazardous facilities are being prepared for decommissioning, 10 nuclear and radiation-hazardous facilities have been liquidated.

In total, from 2008 to 2012, 21 nuclear and radiation-hazardous facilities were decommissioned.

DECOMMISSIONING OF NUCLEAR SUBMARINES

In 2012, work aimed at the improvement of the safety of coastal maintenance bases, where UNF and RW from nuclear submarines and surface ships are temporarily stored, continued. This work includes the following activities:

The Outcomes of Decommissioning in 2012

Enterprise	Results
OJSC SCC	LRW pool B-2 decommissioned by means of conservation.
FSUE Sever Production Association	6 radiation-hazardous facilities rehabilitated in buildings 7 and 20.
OJSC SSC RF - IPPE	Critical station RF-GS decommissioned.
FSUE FSPC PA "Start" named after Michael V. Protsenko	Decommissioning of the 2nd plant by the conservation of production space and equipment of buildings.
FSBE SRC IHEP	"Crystal" installation decommissioned.
FSUE MCC	1,200 t of equipment of uranium-graphite reactor dismantled.
OJSC SCC	The building uranium-graphite reactor EI-2 is planned for decommissioning by the end of 2015 by "on-site burial" freed from the equipment (712 t)
OJSC High-Technology Research Institute of Inorganic Materials	Decommissioning works on the research block B have been initiated. The block will be decommissioned by "liquidation" in 2015.
OJSC Concern Rosenergoatom	Decommissioning works have been initiated for the non-performing power generating units 1 and 2 of Novovoronezh NPP and for the power generating units 1 and 2 of Belayarsk NPP.

- 442.5 m³ of liquid radioactive waste was recycled
- the exportation of a UNF element from the Primorye territory for further recycling; about 4 t of UNF processed
- the construction of long-term storage facilities for reactor compartments of decommissioned nuclear submarines continued at Cape Oyster (Primorsky Territory);
- the completion of the first phase of reconstruction of a coastal technical base in Sysoev Bay (Primorye) to ensure environmental safety completed;
- the completion of the construction of SRW storage facilities with a storage capacity of 5,000 m³ completed;
- the completion of the construction of facilities for sealing damaged nuclear submarines completed (the Primorsky Kray).

In 2012, the disposal of nuclear submarines was not carried out. The main focus of the work was the formation of single-compartment reactor units and their further placement on a slipway pad foundation.

Safe storage of reactor units of nuclear submarines, units (as of December 31, 2012 cumulatively from 2008)

	Total	North-West Region	Pacific Region
Nuclear submarines disposed of	3	2	1
RW units hosted for long-term storage	54	54	0
Located on a solid foundation to be prepared for cutting RW units	4	2	2

DISMANTLING AND DISPOSAL OF RADIOISOTOPE THERMOELECTRIC GENERATORS

The dismantling and disposal of radioisotope thermoelectric generators (RTGs) is one of the priority activities to reduce the potential radiological threats.

By December 31, 2012, 932 RTGs had been decommissioned with funding from the state budget of the Russian Federation and technical assistance from the USA, Norway, Finland, Canada and France; 44 RTGs were decommissioned in 2012.

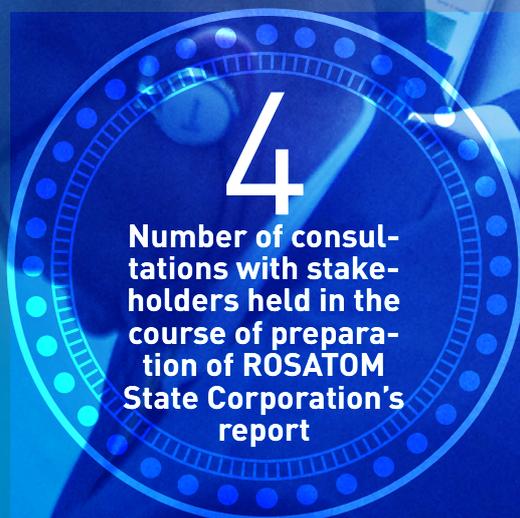
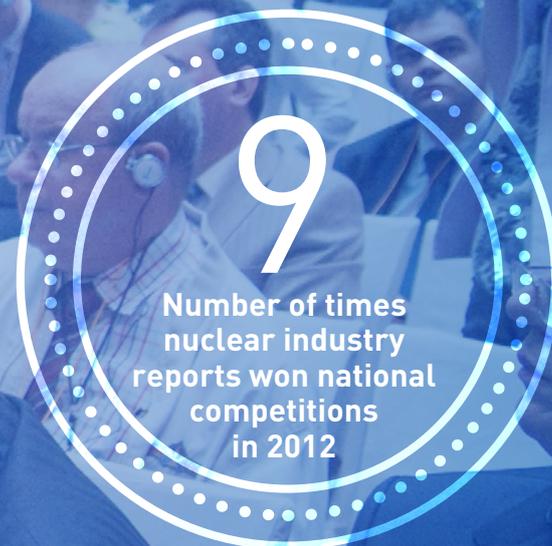
In 2013, it is planned to decommission 32 RTGs and to continue the search for 3 RTGs that have been lost near the island of Sakhalin, the Taimyr Peninsula and Chukotka Peninsula.

Section 5

Interaction with Stakeholders during Preparation of the Report

Increasing the responsibility of large companies before a broad range of stakeholders is recognized as an internationally important factor in the development of world markets. Transparency and accountability of companies is an integral part of the implementation of the principles of sustainable development. ROSATOM's aim to create a company which would be one of the dominant players on the world market for nuclear technology required the creation of an industry-public report system on the basis of international norms of corporate reporting. This system is being implemented by the Corporation since 2009.

5.1. Public Reporting System of the Corporation and its Organizations...	155
5.2. Dialogue with stakeholders	157
5.3. Taking into account proposals of stakeholders	158
5.4. Statement of Public Assurance of the Report	161



5.1. Public Reporting System of the Corporation and its Organizations

Approach to Corporate Reporting

The increased accountability of large companies to a wide range of stakeholders is internationally considered to be an important factor in the development of the world markets. The transparency and accountability of companies are an integral part of the implementation of the principles of sustainable development. The goal of ROSATOM State Corporation, which is to establish itself as one of the dominant players in the world market of nuclear technologies, has required the formation of an industry-wide system of public reporting based on international standards for corporate reporting. Such a system has been in place in the Corporation since 2009.

 For details, see the e-version of the Annual Report

RESULTS IN 2012

International Projects

In 2011, ROSATOM State Corporation joined the Pilot Program of the International Integrated Reporting Council (IIRC). In 2012, proposals for the upcoming standard for integrated reporting have been systematically sent to IIRC. The basic principles and elements of the content presented in the prototype Standard for Integrated Reporting were used to prepare this report. The reports of key organizations of the Corporation for 2012 were also made using the IIRC recommendations.

On the initiative of ROSATOM State Corporation, the Russian Regional Network for Integrated Reporting has been set up. Within the framework of the Network, a website was launched (<http://ir.org.ru>), preparation for a collection of papers on integrated reporting started, and three sessions of the Business Club, which representatives of the major companies of Russia took part in, were held.

In the reporting year, the Corporation established a working group to develop the international industry-wide protocol of

reporting for nuclear sector companies. The preparatory work to organize the international contest for the reports of nuclear sector companies was carried out as follows: procedures for the industry contest were updated and research into the leading international contests was conducted.

 For details see, the e-version of the Annual Report

The International Integrated Reporting Council

(IIRC) is an international organization established in 2010 (headquartered in London, the United Kingdom) to form a standard for integrated reporting that provides the users with access to significant financial and non-financial information about the company in a single document. (The standard is to be issued in December 2013.) According to IIRC, the development of corporate reporting in this format meets the needs of a modern world economy focused on sustainable development.

In 2011, IIRC started a three-year pilot program for the practical exercise of approaches to form integrated reports and to develop the standard for integrated reporting to be issued in December 2013. By the end of 2012, the number of members of the pilot program comprised more than 80 organizations from around the world, including Coca Cola, Microsoft, Volvo, KPMG, Novo Nordisk, Danone, HSBC, and Marks & Spencer. ROSATOM State Corporation and OJSC Rosneft Oil Company were the Russian members of the program

Improving Interaction with Stakeholders

In order to improve interaction with stakeholders of the Corporation and its key organizations, research was conducted into those institutes that interact with stakeholders in the nuclear industry. The institutes involved different forms of collaboration among stakeholders and the Corporation (Committees, commissions, meetings, etc.). Seventy three (73) percent of stakeholder respondents believe that the activities of the institutions of public verification are significant for the industry, which confirms the necessity to continue activities.

On 18/12/2012, the results of the research were presented at the working meeting of ROSATOM State Corporation and its stakeholders, including members of the Public Council of the Corporation. At the meeting, the international experience of the activities of the stakeholders' commissions and the methods of industry-wide interaction with stakeholders in the preparation of reports was presented

Improving the Regulatory and Procedural Framework

In 2012, the System of Public Reporting Indicators was improved (it includes more than 200 indicators and 400 deliverable factors) and five organizations started to develop specific indicators.

The public reporting systems were improved in key organizations. (The num-

In 2012, the Corporation was involved in the preparation of a new version of the GRI — G4 Guidelines, by sending comments and suggestions to the draft document. The standard was issued in May 2013.

ber of key organizations has increased by a factor of 2.5 for the reporting year: 22 companies prepared integrated reports, 13 of them for the first time.) Nine key organizations approved the local regulations concerning public reporting. The three-level system of reporting has been implemented: the Corporation — Holding Companies — Key Organizations of the Holding Companies (OJSC Atomenergomash and TVEL OJSC). The preparation

of reports of nine key organizations is under the supervision of the internal control and audit departments. The panels of stakeholders (commissions) have been established in five key organizations.

The training and guidance support to employees of key organizations continued in the field of report preparation — seminars comprising more than 40 training hours in total were held.

Issuance of the Public Reports of the Corporation and its Key Organizations

The quality of disclosure of accounting information has significantly improved, including compliance with the Guidelines for Reporting related to the sustainable development of GRI and interaction with stakeholders

History of Issuance of the Public Reports of ROSATOM State Corporation and its Key Institutions

	2012	2011	2010	2009
Number of integrated reports	22, incl. 2 at A+ level, 9 B+, 2 C+, 5 C	9, incl. 8 at B+ level	9, incl. 2 at C level, 2 at C+	8, incl. 2 at C level
Number of reports that received public verification	19	8	3	—
Number of reports in English	9	9	4	1
Number of dialogues with the stakeholders during report preparation	70	33	8	—
Number of electronic reports	9 interactive reports	4 interactive reports, 2 smart-pdf, 1 jpg-show	—	—

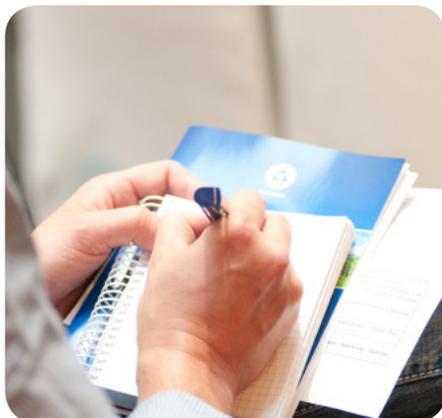
A+, B+, C+ - GRI G 3.1 Application Levels

Industry Contest for the Public Reporting of Organizations of ROSATOM State Corporation

In autumn 2012, the 4th industry contest for public reporting was held. OJSC NIAEP was the winner of the contest (89.69 points). The annual report of ROSATOM State Corporation did not participate in the contest, but was evaluated by the independent contest jury and was awarded 93.15 points.

 For details, see the e-version of the Annual Report

The improved quality of reporting of the Corporation and its organizations was marked by a number of awards at national contests for annual reports (29 national contests have been won since the public reporting project started).



Results of the National Contests for Annual Reports of 2012

Rating Agency Expert RA XIV Annual Federal Contest for Annual Reports	
Winner of the special nomination "For the Initiative to Implement Integrated Reporting"	OJSC Atomredmetzoloto
Diploma of the nominee for "Best Interactive Report"	OJSC Rosenergoatom Group of Companies
The Securities Market Magazine, Social Network INVESTOR.RU, the Federal Service for Financial Markets XV Annual Federal Contest for Annual Reports and Websites	
Winner of the nomination "Best Annual Report of a State Corporation / Public or Private Company"	OJSC NIAEP
Moscow Exchange MICEX-RTS XV Annual Federal Contest for Annual Reports and Websites	
Winner of the nomination "Best Integrated Report"	TVEL OJSC
Winner of the nomination "Best Interactive Report"	OJSC Rosenergoatom Group of Companies
Second place in the nomination "Best Disclosure to Clients"	OJSC Atomredmetzoloto
Third place in the nomination "Best Disclosure to the Clients"	OJSC Siberian Integrated Chemical Plant (OJSC SKhK)
Winner of the nomination "For the Development of Integrated Reporting, of RUIE"	ROSATOM State Corporation
Entrepreneurs Competition "Best Russian Enterprises. Dynamics, efficiency, accountability — 2012"	
Winner of the nomination "For the high quality of the Company's Report on Sustainable Development"	ROSATOM State Corporation
The International Integrated Reporting Council	
Appreciation for an active contribution to the Pilot Program of the International Integrated Reporting Council and for the promotion of integrated reporting in Russia	ROSATOM State Corporation

PLANS FOR 2012

On an international scale

- Participation in the Pilot Program of the International Public Reporting Council (participation in the development of the international standard for integrated reporting, development of the IIRC recommendations on the preparation of reports in pilot mode);
- Support of the activities of the Russian Regional Network for Integrated Reporting;
- Work on development of the international protocol of reporting for nuclear-sector companies and the international contest for reports.

On an industry scale

- Updating of the regulatory and procedural framework, including the system of public reporting indicators;
- Improving the systems of public reporting indicators in holding companies;
- Institutionalization of the institutions of public verification;
- As part of current practice — training and guidance including the support by experts of key organizations (textbook, seminars, the examination of concepts and draft reports).



Kirill Komarov, Deputy CEO for Development and International Business, Chairman of the Public Reporting Committee of ROSATOM State Corporation

5.2. Dialogue with Stakeholders

In order to increase transparency and accountability at ROSATOM State Corporation, representatives of key stakeholders are involved in the production of reports by contributing to dialogues to discuss socially important aspects of corporate business and its reflection in

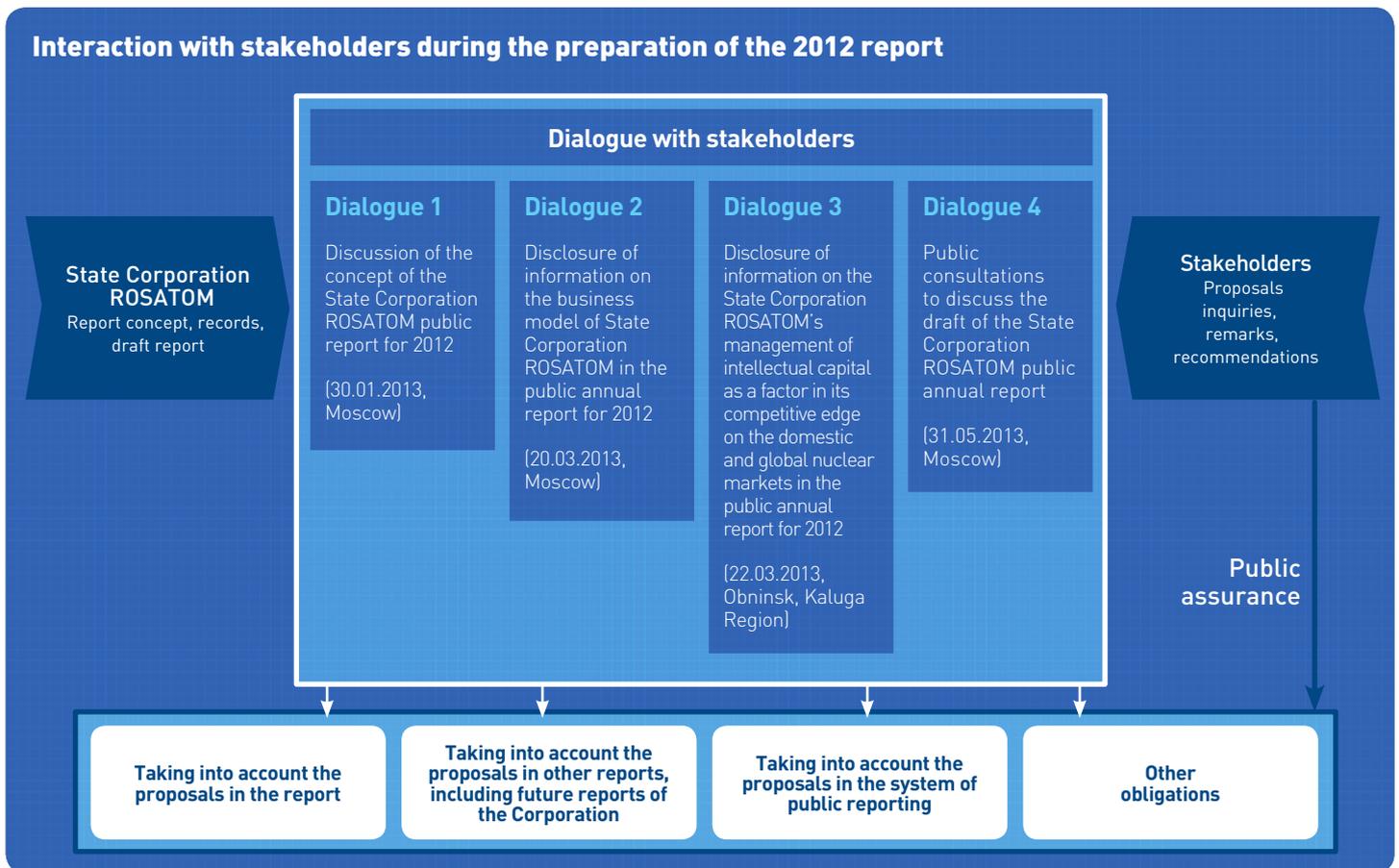
the future report, as well as participation in the public assurance of the report. The above procedures are regulated by international standards: the AA1000SES Institute of Social and Ethical Accountability, the Global Reporting Initiative (GRI, version G3.1).

While preparing the previous report, ROSATOM State Corporation assumed obligations, most of which were performed in the report for 2011, part of which were undertaken in 2012.

Performance of the obligations assumed while preparing the report for 2011

Proposals of stakeholders	Obligations of the Corporation	Compliance with the obligations
Include data on approaches to design and construction of low power nuclear plants (including safety) in the report.	To be taken into account in drafting the concept of 2012 report.	Information to be defined.
Make issues of safety culture and HR of companies a priority of the 2012 report.	The proposal will be considered in the concept of 2012 report.	Not taken into account. Will be considered in the concept of 2013 report.
Use the experience of Skoda J.S. a.s. for report preparation.	The experience of Skoda J.S. a.s. in public report writing will be studied.	Taken into account. The experience of large international companies, including Skoda J.S. a.s., in public report writing was analyzed.
Dedicate part of the dialogues in the future to general (unspecialized) subjects of the report.	The proposal will be considered in the concepts of 2012 and further reports.	Taken into account. A dialogue was conducted on information disclosure on the ROSATOM State Corporation business model within the public annual report for 2012.
Ensure that representatives of ROSATOM State Corporation take part in the forum and dialogue (September 2012) with a report on the results of the first stage of public involvement in the report on the nuclear industry.	Representatives of the Corporation are to take part in the forum and dialogue.	Taken into account. A report on the results of the first stage of public involvement in the report on the nuclear industry was presented at the 7th International Public Forum-DIALOGUE "Atomic Energy, Society, Safety 2012."

Interaction with stakeholders during the preparation of the 2012 report



During preparation of the current report, ROSATOM State Corporation held four dialogues with representatives of stakeholders. They were attended by deputy general directors, directors of departments, project leaders, professionals in various areas. Stakeholders were represented by delegates from international nuclear organizations and large companies within other industries, the Federal Service for Ecological, Technological and Nuclear Inspection, governmental bodies of the federal and regional level, local authorities, key organizations of ROSATOM State Corporation, public and non-profit organizations, educational institutions, environmental and research organizations, business associations, the expert community in corporate governance, members of the Corporation's Public Council, as well as members of the Russian regional network for integrated reporting.

In the course of the discussions, stakeholder representatives voiced inquiries and specific recommendations to disclose certain information in the annual report, as well as proposals for the Public Reporting System (minutes of the dialogues can be obtained at the Communications Department).

5.3. Taking into Account Proposals of Stakeholders



During the dialogues concerning the preparation of reports, 37 proposals and recommendations were put forward. Most proposals dealt with inquiries for publication of certain information in the report. For a number of requests, references to the respective sources of information were given in the course of the dialogues.

ROSATOM State Corporation made a concerted effort related to the recommendations received for the draft report (its structure, content, form of presentation of the reported data) and improvement of the Public Reporting System. As a result, 28 proposals (75.7 %) were taken into account fully or partially, and 1 (2.7 %) were not taken into account, 8 proposals (21.6 %) will be taken into account or considered in preparing the report for 2013.

Taking into account the most significant proposals of stakeholders

Proposals of stakeholders	Reaction of the Corporation
Focus on issues of patents and the legal protection of inventions, know-how, software, trademarks, brands.	Taken into account in Section “Intellectual Capital Management”.
Carry out market evaluation of the Corporation’s intellectual property and add it to the report.	Not taken into account. The proposal is not related to report preparation. The proposal (minutes of the dialogue) was sent to the Innovations Management Unit.
Supply the report with disclosure of activities in various fields of the Corporation’s R&D.	Taken into account in the section “Strengthening the potential of innovations for further development of Russian nuclear technology and expanding their application”.
Consider the following logic within the strategy section of the report: strategy (global and technological leadership of the Corporation), safety as the frame of reference for the strategy, and the Corporation’s business model.	Taken into account in the sections “Information on the Corporation” and “Strategy and System of Management”.
Carry out an analysis of the mid- and long-term development of the products and services markets in the report, including projections and possible scenarios of the Russian and global energy markets development.	Partially taken into account in the section “Target Markets”.
Consider elaboration of the business model subject, which, while not a priority, should be a key topic of the report.	Taken into account in the section “Business model; a system of references on business models of key organizations was introduced.
Consider ways to create national standards in the system of non-financial reporting.	Taken into account. Representatives of ROSATOM State Corporation take part in work of the interagency workgroup of the Russian Ministry for Economic Development for the development of a concept of non-financial reporting in Russia.
To split the section “Nuclear and radiation safety and comprehensive solution to the nuclear legacy issues” into two subsections: “Nuclear and radiation safety” and “Solution to the nuclear legacy issues”	Taken into account, two subsections were formed: “Nuclear and radiation safety” and “Solution to the nuclear legacy issues”.
To reflect the contribution of the Corporation to the social and economic development of the country.	Taken into account in the sections: “Social and economic capital management within the Corporation’s footprint”, “Efficient provision of the RF economy with NPP-produced power” and others.

ROSATOM State Corporation obligations to consider the proposals

Proposals of stakeholders	
Prepare data on safety in the context of the human factor impact and related issues of the safety culture and HR of companies in 2012, and make it a priority in the 2013 report.	Will be considered in the concept of the 2013 report.
Add indicators of the research and innovation efficiency of the Corporation to the system of its reporting indicators, as well as consider the proposal to introduce new integral indicators to cover the subject of intellectual capital management.	Will be taken into account in the course of improvement and revision of the industry performance indicators.
While developing the concept of the 2013 report, consider the possibility to include data on development of the technological road map (in 2012, defense of the business plans of the division was carried out and technological strategies of their development were considered, but only the radiation technology strategy was adopted; before June 01, 2013, key provisions of the technological roadmap are to be developed and discussed with the industry research community).	Will be considered in the concept of the 2013 report.
Reflect the participation of foreign companies in ROSATOM’s activities in Russia in the report, including the structure of contractors and procurement.	Will be considered in the concept of the 2013 report.
Promote the report, present it to the Federal Assembly, as well as regions, including youth parliaments.	The proposal will be considered by the Public Reporting Committee. It is feasible to carry out a presentation in the Federal Assembly, while the question of report presentation in the regions requires separate discussion.
Involve MEPHI students in discussion of the draft report.	The proposal will be considered by the Committee for public reporting. It is feasible to involve students in discussion of the annual report (for example, hold its presentation and discussion at MEPHI) for further improvement of reports and to take into account the interests of students.



V.E. Mezhevich,
First Deputy Chairperson,
Committee of the
Federation Council for
Economic Policy

"Representatives of the RF Federal Assembly — the State Duma and the Federation Council — regularly act as public assurance providers for the public annual reports of ROSATOM State Corporation. Furthermore, reporting to the regional legislator authorities, whose interests we represent in the Federal Assembly, we use ROSATOM's report. I consider the practice of submitting ROSATOM's report in the regions where the Corporation operates through members of parliament to be very useful and I recommend keeping up the practice of presentation of the public reports of ROSATOM at the Federal Assembly. By the way, it is also useful from the point of view of preparation of those reports".



A.V. Putilov,
Dean of the faculty of
management and economy
of high technologies at the
National Research Nuclear
University MEPHI

"The public annual report of ROSATOM State Corporation is a unique source of verified precise information on the state of affairs in the industry. It is very interesting for students who plan a career in the nuclear power industry. Interaction with higher education institutions should be presented in the report on a wider scale and I am certain that the youth, student audience should be involved in discussion of reports".



E.N. Feoktistova,
Deputy Chairperson of the
Council for Non-financial
Reporting, Head of the
Center for Corporate
Social Responsibility and
Non-financial Reporting
of the Russian Union
of Industrialists and
Entrepreneurs

"Shifting to a new reporting format brings about both new opportunities and risks. The Corporation assumed the difficult task of pioneering integrated reporting in Russia, practically implementing a new format of public report.

The actual integration of the objectives of financial reporting and sustainable development reporting, the satisfaction of the requests of both investors, who are the primary target group of the financial annual report, and other stakeholders — these are the practical objectives which need a balanced solution, particularly within the framework of the further development of ROSATOM's public reporting".



A.V. Khasiev,
Chairperson of the
Interregional Environ-
mental Movement Oka

"I believe that it is very important to make the subject of the competitiveness and efficiency of ROSATOM in the context of Russia's entrance to the WTO a priority of future report. For this purpose, it is important to carry out market valuation of corporate intellectual property. Particular attention should be paid to issues of patent and legal protection of inventions, know-how, software, trademarks, brands. It will be useful to analyze the mid- and long-term (up to 2050) development of the markets of products and services offered by the Corporation, including projections and possible scenarios of the development of the Russian and global power markets... In my opinion, it is crucial for you to give an opportunity to all interested parties (primarily, the public) to see new prospects in industry development. For business not only creates goods and services, but also develops markets for promotion of these products. It would be very interesting to see this information in the report".

5.4. Statement of Public Assurance of the Report

INTRODUCTION

ROSATOM State Corporation suggested that we assess the 2012 Annual Report of the State Atomic Energy Corporation "ROSATOM" (hereinafter referred to as the Report), including the completeness and relevance of information disclosed in it and the Corporation's response to stakeholders' requests. To do so, we and our representatives were given an opportunity to participate in public consultations on the draft Report held on May 31, 2013, as well as in dialogs with stakeholders ("Discussion of the draft concept of the 2012 public report of ROSATOM State Corporation" on January 30, 2013; "Disclosure of information on the business model of ROSATOM State Corporation in the 2012 public report of ROSATOM State Corporation" on March 20, 2013; "Disclosure of information on intellectual property management in ROSATOM State Corporation as a factor in its competitiveness in the Russian and global nuclear market in the 2012 public annual report" on March 22, 2013).

In the course of public certification, we analyzed and assessed the format, structure, textual and visual contents of the Report, the relevance and completeness of information disclosed in it, and the Corporation's response to stakeholders' comments and proposals.

Our statement is based on comparative analysis of two versions of the Report (the draft Report for public consultations and the final version of the Report) and materials on the outcomes of dialogs provided to us (minutes of the meetings, tables tracking stakeholders' proposals), as well as on comments made by the management and employees of ROSATOM State Corporation in the course of public certification of the Report.

In the course of public certification of the Report, we did not set ourselves the task of reviewing the Corporation's system of information gathering and analysis. Besides, the scope of public certification does not include the accuracy of factual information provided in the Report.

We received no remuneration from the Corporation for participating in the public certification procedure.

ASSESSMENTS, COMMENTS AND RECOMMENDATIONS

We are unanimous in our positive assessment of the Report, its format and the volume of information it contains. It is essential that the Report was prepared voluntarily and published for the fourth time, setting a good example of consistent efforts to increase the level of transparency and accountability of the state-owned corporation.

When preparing the Report, the Corporation demonstrated a high level of commitment to ensuring that the development of nuclear technologies is acceptable to the public, as well as its readiness to hold an open dialog with stakeholders on various aspects of its operations. We see that the Corporation's management is aware that cooperation with stakeholders is constructive and takes measures to ensure it.

We believe that the integrated nature of the Report enabled a comprehensive disclosure of information on all key aspects of the Corporation's operations, including those related to sustainable development. We believe that it is the integrated Report that should reflect the official position of the Corporation's management on the key socially important aspects of its operations.

A distinguishing characteristic of the Report consists in the fact that it meets the key requirements of the Consultation Draft of the International Integrated Reporting Framework of the International Integrated Reporting Council (IIRC). On the recommendation of the IIRC, the structure of the Report was changed considerably:

- information on the results of operations is presented in accordance with the Corporation's long-term strategic goals;
- the Report focuses largely on the Corporation's business model, an element of the content forming the basis for disclosing the information in the Report;
- considerable importance is attached to the management system and disclosure of information on the Corporation's key resources: finances, property,

plant and equipment, human resources, intellectual property, social and economic resources, social resources and reputation, as well as on environmental impact management.

The Report was prepared based on Russian and international corporate reporting standards (the GRI (Global Reporting Initiative) G3.1 Sustainability Reporting Guidelines, the AA1000 series of standards set by the Institute of Social and Ethical Accountability, the Basic Performance Indicators of the RSPP) and the in-house corporate standards in public reporting, which is undoubtedly a merit of the Report.

It should be emphasized that this is the first time that the Corporation's report meets the requirements for the A+ GRI Application Level. The number of GRI performance indicators disclosed in this Report is much higher than in the previous Report. We also recorded an increase in the number of performance indicators disclosed in accordance with corporate public reporting standards. This indicates that the Corporation continues to take measures to improve the quality of information it discloses.

We are not aware of any facts that could call into question the accuracy of information provided in the Report.

At the same time, we would like to draw the attention of the Corporation to a number of aspects related to the relevance and completeness of information disclosure that are important to stakeholders, and we would like to recommend reflecting them in reports in the future:

- to reflect the connection between the Corporation's strategic goals and sustainable development targets;
- to provide more detail on issues related to operations and the ways of tackling them in the short, medium and long term.

RELEVANCE OF INFORMATION

We believe that the Report of ROSATOM State Corporation covers all subjects that are important to its stakeholders. The Report presents the Corporation's position on issues related to strategic development, management, financial

and economic performance, social, environmental and economic impact of its operations.

We think that the priority topic of the Report, intellectual property management in ROSATOM State Corporation as a factor in its competitiveness in the Russian and global markets for nuclear energy, has been selected appropriately, as this topic attracted considerable interest of stakeholders in 2012 and is crucial to achieving the strategic goal of global leadership.

The Report reflects the Corporation's position on issues that are a matter of concern to the international nuclear community, environmental organizations, representatives of local communities in the Corporation's operating regions and other stakeholders.

COMPLETENESS OF INFORMATION

We approve of the reduction in the volume of the 2012 Report (as compared to previous reports) by singling out the most important information, providing some information in the electronic (interactive) version of the Report and making references to other sources of corporate information. At the same time, the Report still maintains the necessary level of completeness of relevant information and has become more convenient for readers.

THE CORPORATION'S RESPONSE TO STAKEHOLDERS' COMMENTS AND PROPOSALS

ROSATOM State Corporation responded to stakeholders' proposals by making amendments and including additional information in the final version of the Report (or giving reasonable explanations as to why the requested information cannot be disclosed), as well as by assuming a number of obligations related to disclosing certain items of information in the next reporting period and to improving the public reporting system, including the following measures:

- including R&D and innovation performance indicators in the industry-wide system of reporting indicators and considering the proposal for introducing new integrated indicators to provide information on intellectual property management;
- considering the proposal for presenting the report to the Federal Assembly of the Russian Federation in order to promote the Report.

It is worth mentioning that ROSATOM State Corporation has made considerable efforts to take into account comments on the 2011 report. The report on fulfilling the relevant obligations is provided in chapter 5 "Interaction with Stakeholders during Preparation of the Report". Besides, the Corporation took into account comments made in the course of public certification of its 2011 report and took relevant measures, including the following:

- providing more detail on the Corporation's business model and correlation between financial and non-financial performance and the resources used;
- taking more active measures for preparing the electronic (interactive) version of the report, which makes it possible to create versions of modern reports that contain more information;
- following the recommendation for completing the preparation of the report more promptly.

Ruslan Tikhonov,
Member of the Energy Committee of the State Duma of the Russian Federation



Valentin Mezhevich,
First Deputy Chairman of the Committee of the Federation Council for Economic Policy.



Vladimir Potsyapun,
Head of the Subcommittee for Legal Support to the Nuclear Industry of the State Duma



Valery Bezzubtsev,
Deputy Head of the Federal Service for the Supervision of Environment, Technology and Nuclear Management



Ludovic Devos,
Head of AREVA Representative Office in Russia and the CIS countries



We believe that the Corporation made considerable progress in promoting cooperation with stakeholders and the public reporting practice in the nuclear industry. Preparation of the Report involved a wide range of measures aimed at cooperating with stakeholders; various stakeholder groups were offered an opportunity to make proposals for disclosing information in the Report and developing the reporting system in the industry as a whole.

We hope that ROSATOM State Corporation will continue consistently applying corporate responsibility principles to its operations by developing the public reporting system and cooperating with stakeholders.

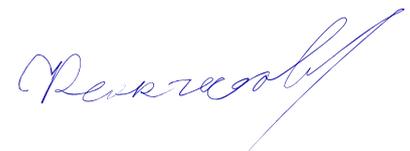
Alexander Makarenko,
Executive Director, Association of Closed Administrative Territorial Units in the Nuclear Industry



Igor Fomichev,
Chairman of the Russian Trade Union of Nuclear Power and Industry Workers



Elena Feoktistova,
Head of the Center for Corporate Social Responsibility and Nonfinancial Reporting of the Russian Union of Industrialists and Entrepreneurs



Mikhail Strikhanov,
Rector of NRNU MEPhI



List of Abbreviations

ALA	administrative and logistic activities
ARMIR	automated workplace for assessment of individual risk
ASERC	automated system of environmental radiation control
ASTS	automated system of transportation safety
BA	business accounting
CAT RAT	closed administrative territories, restricted-access township
CFNPP	capacity factor of NPPs
CIS	Commonwealth of Independent States
CJSC	closed joint stock corporation
CMBF	Chief Manager of Budget Funds
CNFC	closed nuclear fuel cycle
CRMS	corporate risk management system
CRS	closed radiation source
CURS	central uniform remuneration system
DEC	demonstration experimental center
ENU	experimental nuclear unit
EUP	enriched uranium product
EURASEC	Eurasian Economic Community
FAIR	Facility for Anti-proton and Ion Research (FAIR)
FE	fuel element
FEU	financial and economic unit
FMBA	Federal Medicine and Biology Agency
FRC	financial responsibility centre
FSLC	final stage of the life cycle
FST	Federal Service for Tariffs

FTP	Federal Target Program
GC	gas centrifuge
HAW	high-activity waste
HC	hazardous chemicals
HEU	highly enriched uranium
IAEA	International Atomic Energy Agency
IGA	inter-governmental agreement
INES	International Nuclear Events Scale (INES)
INPRO	Central Uniform Remuneration System (INPRO)
IP	Intellectual Property
IRG	inert radioactive gases
ISL	drill hole in situ leaching
ITER	International Experimental Thermonuclear Reactor (ITER)
IUEC	International Uranium Enrichment Centre
JV	Joint Venture
KPI	key performance indicators
LAW	low-activity waste
LC	life cycle
LEU	low-enrichment uranium
LLC	Limited Liability Company
LRW	liquid radioactive waste
LTSSRB	long-term storage sites of reactor blocks
MAW	medium-activity waste
MFSSC	multi-functional shared service centre
MMLCE	monopolist manufactured long cycle equipment

NAC	nuclear weapons complex
NEF	nuclear energy facilities
NFC	nuclear fuel cycle
NIPC	nuclear icebreaker production complex
NPA OECD	Nuclear Power Agency of the Organization for Economic Cooperation and Development
NPP	nuclear power plant
NRHS	nuclear and radiation hazardous site
NRS	nuclear and radiation safety
NS	nuclear submarine
NSS	nuclear service ships - a class of special ships and vessels ensuring radiation and nuclear safety during operation and dismantlement of surface ships and submarines equipped with nuclear power plants
OJSC	public joint stock corporation
OSCHS	functional subsystem to prevent and eliminate emergencies
in organizations subordinate to and controlled by ROSATOM State Corporation	long-term storage facilities for reactor compartments
PI	private institution
PROFATOM	Russian Trade Union for Nuclear Power Generation and the Nuclear Industry
R&D	research & development
RAW	radioactive wastes
RBMK	boiling water-cooled graphite-moderated pressure-tube type reactor
RC	reactor compartment
RF	Russian Federation
RITG	radio isotope thermoelectric generator
RLTAP	ROSATOM long-term action program

RM	radioactive materials
ROSATOM State Corporation, CORPORATION	State Atomic Energy Corporation ROSATOM
ROSTEKHNADZOR	Federal Service for Environmental, Technological, and Nuclear Supervision
RSE	results of science and engineering
RUIE	Russian Union of Industrialists and Entrepreneurs
S&A	subsidiaries and affiliate corporate entities
S&P	shutdown and preservation
SEC	science and engineering complex
SNF	State Naval Forces
SRS	sealed radiation sources
SRW	solid radioactive waste
SUE	State Unitary Enterprise
SWU	separative work unit
TA	tax accounting
TVS	fuel assembly/set
UHF	uranium hexafluoride
UILDFS	Uniform industry-level document flow system
UN	United Nations Organization
UNF	used nuclear fuel
UNS RAW	Uniform National System of RAW handling
UNS UNF	Uniform National System of UNF handling
WAO NPP	World Association of Operators of Nuclear Power Plants
WWER	water-water energy reactor
XIC	x-ray inspection complex

Glossary

Corporate social responsibility	A concept by which organizations consider the needs of their stakeholders. This is a set of obligations worked out voluntarily by corporate management, to consider the interests of employees, stockholders, the local community in the areas of presence, governments, municipalities, and other stakeholders. Such obligations are mainly performed at the organization's expense and are meant to achieve significant internal and external social (in the broad sense) programs, the results of which assist corporate growth, reputation or image, and promote the fruitful engagement of stakeholders.
(Global Reporting Initiative, GRI)	An internationally accepted system of reports on results in business, environmental, and social activities, as described in the guidelines on sustainable development reports, technology protocols and industrial addenda.
Nuclear power generation industry	A power industry employing nuclear power to generate electricity and heat supply.
BECQUEREL (BQ)	A unit of nuclide activity in the radioactive source, equal to the nuclide activity at which one nuclear decay event occurs each second.
BOO contract (Build – Own – Operate)	A contract that provides for obligations to build, own, and operate a facility.
Business model of a company	A model consisting of the main business operations and resources/capital by which a business creates and maintains its value in the long term.
Capacity factor of NPPs (CFNPP)	The ratio of actual power output by the reactor unit during operation to power output when used non-stop at rated capacity.
Closed nuclear fuel cycle	A nuclear fuel cycle in which used nuclear fuel is recycled to extract uranium and plutonium for reuse in nuclear fuel.
Contaminated lands	Lands exposed to contamination with various substances including radioactive contamination, including lands contiguous to production sites of ROSATOM State Corporation or township.
Depleted uranium	Uranium in which the content of the uranium U-235 isotope is lower than in natural uranium (for example, uranium in used fuel of reactors that burn natural uranium).
Dialog with stakeholders (to prepare the annual report)	An event organized to meet international standards of series AA 1000, so that the host can interact with representatives of its main stakeholders and thus prepare and promote its Public Annual Reports.
Enrichment (by isotope)	a) The content of atoms of a specific isotope in the mix of isotopes of the same element, if it exceeds the isotope's share in the mix that is found in nature (as a percentage); b) the process that increases the content of a specific isotope in a mix of isotopes.
Enrichment of uranium ore	The entirety of processes used to treat mineral uranium material in order to separate uranium from other minerals in the ore composition; this does not change the composition of minerals, but merely separates them mechanically to produce ore concentrate.
EPC contract (Engineering – Procurement – Construction)	A contract that provides for obligations to deliver a facility in a hand-over condition, encompassing the engineering, supplies, and construction thereof; ownership of the facility is not part of the contract, unlike a BOO arrangement.
EPCM contract (Engineering – Procurement – Construction – Management)	A contract that provides for obligations to deliver a facility in a hand-over condition, encompassing the engineering, supplies, and construction thereof, as well as management of the construction; ownership of the facility is not part of the contract, unlike BOO arrangements.

Experimental operation	A stage of nuclear plant commissioning, from the beginning of the power launch to acceptance for industrial operation.
Experimental reactor	A nuclear reactor used as an instrument of experimental research in order to obtain information on reactor physics and technology as needed to design and develop reactors of that type or their components.
Fast neutrons	Neutrons with kinetic energy above a certain value that may vary within a broad range and depend on application (reactor physics, protection or dosimetry). In reactor physics, the value is usually assumed as 0.1 MeV.
Fuel assembly	A set of fuel elements (rods, bars, plates, etc.), held together with spacer grids and other structural components, which exist as one whole during shipments and irradiation inside the reactor; assemblies are loaded into the core of a nuclear reactor.
Fuel pellet	A pellet of compactly pressed uranium dioxide as the basis of nuclear fuel placed inside TVEL elements.
Generation start	The stage during the commissioning of nuclear plants when the nuclear plant begins the generation of power and its operation is tested at various output rates up to the rate designated for industrial operation.
HEU purchase agreement	An agreement signed between the Russian Federal Government and the US Government on the use of high-enriched uranium extracted from nuclear arms, under which Russia assumed the obligation to sell to the US for 20 years (until the end of 2013) low-enrichment uranium (LEU) produced from 500 t of high-enriched uranium (HEU), taken from nuclear arsenals and recognized by the Russian party as redundant in terms of national defence.
IAEA Warranties	An inspection system established as part of the international nuclear non-proliferation system that complies with the peaceful use of nuclear energy as enforced by the International Atomic Energy Agency.
Industrial wasteland	Lands that have lost their value as a result of negative environmental impact due to soil disturbance, hydrological conditions and technogenic relief formation caused by industrial activity.
Integrated report	A report that integrates all relevant information about the organization's strategy, corporate governance, performance indicators and outlooks in a way that comprehensively demonstrates its economic, social and environmental situation; the report gives a clear and distinct idea of how the organization practises reasonable control and creates its value, both at present and in the future.
International Integrated Reporting Council (IIRC)	An international organization that develops a global integrated reporting standard, which enables the presentation of managerial, financial, social or environmental information in an understandable, substantive, consistent and comparable report. The goal of the IIRC is to develop a universal approach to the presentation of corporate information, promoting sustainable development of the global economy.
ISAE 3000 (International Standard on Assurance Engagements)	An international standard used to audit non-financial reports.
Key organizations (for the purposes of public reporting)	Organizations whose activities are of major public and political significance and/or value for positioning ROSATOM State Corporation in Russia and elsewhere.
Key performance indicators (KPI)	Key performance indicators that correspond to ROSATOM State Corporation's goals and represent the efficiency and results of corporate efficiency (within active structural units) and the personal efficiency of employees.

Natural background	Ionizing radiation composed of cosmic and ionizing fractions of naturally distributed natural radionuclides (on the planet's surface, in the air, in food, water, the human body, etc.).
Non-financial reports	The reporting of corporate performance beyond principal production and financial activities (and the control of such results). Non-financial reporting includes sustainable development reports, corporate social responsibility reports, environmental reports, charity reports, etc.
NPP safety	A nuclear plant's capability to ensure the radiation safety of personnel, the general public and the environment within required limits under normal operation conditions and in an emergency.
Nuclear fuel	Material that contains fissionable nuclides which, when placed inside a nuclear reactor, enable a nuclear chain reaction.
Nuclear fuel cycle	A sequence of production processes to ensure the functioning of nuclear reactors, from uranium production to the burial of radioactive waste.
Nuclear Non-Proliferation Treaty	An international treaty to constrain the arms race and prevent the emergence of new nations with nuclear arms. Nations that already have nuclear arms assume the obligation not to transfer such arms or technologies to any other party, while non-nuclear nations promise not to make or acquire nuclear arms or other nuclear explosive devices.
Nuclear safety	A general term that describes the capability of a nuclear unit, under normal operation conditions and in emergencies to keep radiation impact on personnel, the general public and the environment within acceptable limits.
Operator	A corporate entity authorized by the supervising agency to operate a nuclear plant or another nuclear unit.
Phase-Gate process	Phase-gate process – an investment principle in which planning and actual investments into a project are separated into phases, each undergoing a crosscutting Gate Review assessing results, risks and plans for the next phase, providing a basis for decision making to move to the next project phase.
Physical start	The stage during the commissioning of nuclear plants when nuclear fuel is loaded into the reactor, critical mass is achieved, and all requisite physical experiments are conducted at the output level at which heat removal from the reactor occurs as a result of natural heat loss.
Public assurance of a report	The procedure whereby key stakeholder representatives confirm the report as relevant and informative, and evaluate the organization's response to stakeholder comments and proposals, practised under international standard AA1000SES. The result of the public affirmation is a statement of stakeholder assurance signed by key stakeholder representatives and made part of the report.
Radiation control	Gathering data on radiation patterns in an organization, the environment, and the exposure of humans (includes dosimetry and radiometry control).
Radiation safety	A set of activities to limit the radiation burden on personnel and the public to the lowest dose achievable, using publicly acceptable means, and to prevent early consequences of irradiation, also limiting remote consequences of irradiation to acceptable levels.
Radioactive burden	The sum total of separate exposure doses received during activities of operation, maintenance, repair, replacement or disassembly of nuclear equipment, for example, a nuclear plant.
Radioactive emission	Radionuclide released into the atmosphere caused by the operation of a nuclear unit (for example, a nuclear power plant).
Radioactive liquid release	Controlled radionuclide release to water reservoirs together with liquid waste from a nuclear plant (for example, a nuclear power station).
Radioactive waste burial	The safe placement of radioactive waste in storage or other places that prevents the withdrawal of waste and escape of radioactive matter to the environment.

Radioactive waste recycling	Technological operations that change the aggregative stage and/or physical and chemical properties of radioactive waste, to convert them to forms acceptable for transportation, storage and/or burial.
Radioactive wastes	Nuclear materials and radioactive substances not intended for reuse.
Reclaimed lands	Disturbed and industrial waste lands which undergo land reclamation procedures for restoring soil fertility, lands, cultivated after industrial disturbance for further use, etc., which are restored to a condition for further original use (in agriculture, forestry, watershed management and other spheres).
Recommendations of the Russian Union of Industrialists and Entrepreneurs (RSPP) for the use of management practices and corporate non-financial reporting (key result indicators)	A system of indicators of economic, social and environmental results for non financial reports developed by the RSPP to assist in the adoption of the principles of responsible business. It is based on a number of fundamental documents developed by UN structures (including the UN Global Agreement), the Global reporting initiative, and guideline recommendations of the Federal Statistics Board of the Russian Federation, and RSPP procedures (The Social Charter of Russian Business, Recommendations on the preparation of nonfinancial reporting, "Five Steps towards Socially Stable Business", etc.).
Separative work unit (SWU)	A measure of force used to separate a specific quantity of material of specific isotope composition into two fractions with different isotope structures; it does not depend on the separation process used; the unit of separation is the kilogram, and costs of enrichment and energy consumption are calculated per kilogram of completed separation.
Stakeholders	Individuals and/or corporate entities, or groups of such, who by their actions influence and/or are influenced by corporate activities. An organization can have various stakeholders (national and international bodies of control/ supervision, stockholders, users of commodities and services, business partners, suppliers and contractors, civilian public organizations, the local community, trade unions etc.), whose interests may be mutually apart or even conflicting.
Sustainability reporting guidelines (Global Reporting Initiative, GRI)	Guidance on sustainable development reports that outlines the principles that determine the contents of reports and ensure the quality of information in the report; standard report components that consist of performance indicators of the economic, environmental, and social impact of the entity, approaches to control the impact, and other characteristics and recommendations on specific technicalities of reporting.
Sustainable development	Growth that meets the needs of the time but does not endanger the abilities of future generations to meet their needs. Therefore, information openness and corporate accountability as regards business, environmental, and social impact are prerequisites for each business entity.
Uranium conversion	A chemical technological process that converts uranium-containing materials to hexafluoride uranium.
Uranium hexafluoride	A chemical compound of uranium and fluoride (UHF). This is the only volatile uranium compound (if heated to 53°C, uranium hexafluoride passes from a solid to gaseous state) and it is used as source material to separate isotopes of uranium-238 and uranium-235 with gas-diffusion or gas-centrifuge technology in order to produce enriched uranium.
Used nuclear fuel recycling	A set of chemical processes that remove products of fission from used nuclear fuel and regenerate fissionable material for reuse.
VVER	A power reactor that uses water as a heat medium and moderator. The most common reactor type in Russian nuclear plants has two modifications: VVER-440 and VVER-1000.
AA1000SES (AA1000 Stakeholders Engagement Standard)	A universally used and available regulatory basis applied to plan, execute, assess, inform and audit non-financial reports, evaluating the quality of engagement of stakeholders through reporting and corporate accountability in efficient governance.

Appendices

APPENDIX 1. TABLES OF STANDARD DISCLOSURES AND PERFORMANCE INDICATORS GRI (G3.1), AND RSPB BASIC PERFORMANCE INDICATORS

No.	Standard disclosure	Report chapter/section/comment
Strategy and Analysis		
1.1	Statement from the most senior decision-maker of the organization (e.g. CEO, chairperson, or equivalent senior position) about the relevance of sustainability to the organization and its strategy	Address by the Director General About this Report
1.2	Description of key impacts, risks, and opportunities	Address by the Director General Operational strategy of ROSATOM State Corporation Risk management Sustainable development management Managing organizational development
Organizational Profile		
2.1	Name of the organization	General description of the Corporation
2.2	Primary brands, products, and/or services	General description of the Corporation
2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures	General description of the Corporation Appendix 7. List of the key organizations in ROSATOM State Corporation
2.4	Location of the organization's headquarters	General description of the Corporation
2.5	Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report	General description of the Corporation
2.6	Nature of ownership and legal form	General description of the Corporation Corporate governance
2.7	Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries)	General description of the Corporation Business model and target markets Realization of state functions International business
2.8	Scale of the reporting organization	Key results Address by the Director General Business model Target markets Human resource management
2.9	Significant changes during the reporting period regarding size, structure, or ownership	Corporate governance
2.10	Awards received in the reporting period	Human resource management Public reporting system of the Corporation and its organizations
3.1	Reporting period (e.g. fiscal/calendar year) for information provided	About this Report
3.2	Date of most recent previous report	About this Report

No.	Standard disclosure	Report chapter/section/comment
3.3	Reporting cycle (annual, biennial, etc.)	About this Report
3.4	Contacts for inquiries about the Report/its content	Feedback questionnaire Contact information
3.5	Process for defining the Report content, including determining materiality, prioritizing topics within the report and identifying stakeholders the organization expects to use the Report	About this Report Engagement of stakeholders in drafting the Report
3.6.	Boundary of the report (e.g. countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers)	About this Report Appendix 7. List of the key organizations in ROSATOM State Corporation
3.7	Specific limitations on the scope or boundary of the report	About this Report
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations	About this Report Appendix 7. List of the key organizations in ROSATOM State Corporation
3.9	Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the indicators and other information in the report	About this Report
3.10	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement (e.g. mergers/acquisitions, change of base years/periods, nature of business, measurement methods)	About this Report
3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report	About this Report
3.12	Index of GRI contents	Appendix 1. Table of Standard Disclosures and Performance Indicators GRI (G3.1)
3.13	Policy and current practice with regard to seeking external assurance for the report	About this Report Statement of public assurance of the Report Appendix 5. Summary IFRS consolidated financial statements of OJSC Atomenergoprom for 2012 and opinion of the independent auditor, ZAO KPMG. Appendix 6. KPMG's 2012 Independent Limited Assurance Report on ROSATOM non-financial reporting
4.1	Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight	Corporate governance
4.2	Indicate whether the chairperson of the highest governance body is also an executive officer	Corporate governance
4.3	For organizations that have a unitary board structure, state the number and gender of members of the highest governance body that are independent and/or non-executive members	Corporate governance
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body	Corporate governance Social and goodwill capital management Human resource management
4.5	Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organization's performance (including social and environmental performance)	Human resource management
4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided	Implementation of national priorities through ROSATOM's role as an agent of government policy.

No.	Standard disclosure	Report chapter/section/comment
4.7	Process for determining the composition, qualifications, and expertise of the members of the highest governance body and its committees, including any consideration of gender and other indicators of diversity	Corporate governance
4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation	Sustainable development management Social and goodwill capital management
4.9	Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles	Corporate governance
4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance	Corporate governance
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization	Nuclear and radiation safety, and the comprehensive resolution of outstanding "nuclear legacy" problems. Safety of nuclear power facilities throughout their entire life cycle is the absolute priority for ROSATOM State Corporation
4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or that it endorses	Strengthening innovative development of Russian nuclear technologies and expanding their application area Strengthening our position as a global player in the world market of nuclear technologies and services Public reporting system of the Corporation and its organizations
4.13	Memberships in associations (such as industry associations) and/or national/international advocacy organizations	Strengthening innovative development of Russian nuclear technologies and expanding their application area Strengthening our position as a global player in the world market of nuclear technologies and services Implementation of national priorities through ROSATOM's role as an agent of government policy.
4.14	List of stakeholder groups engaged by the organization	Social and goodwill capital management Engagement of stakeholders in drafting the Report
4.15	Basis for identification and selection of stakeholders with whom to engage	Social and goodwill capital management Engagement of stakeholders in drafting the Report
4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group	Social and goodwill capital management Engagement of stakeholders in drafting the Report
4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting	Social and goodwill capital management Engagement of stakeholders in drafting the Report

Table of GRI (G3.1) Performance Indicators and RSPB Basic Performance Indicators

Indicator	Corresponding number of RSPB basic performance indicator	Report section	Level of reporting	Disclosure (if not disclosed in the text of the Report)
Economic Performance Indicators				
EC1 Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments	1.2-1.7	Key Results Social and economic capital management Human resource management	●	Reported
EC2 Financial implications and other risks and opportunities for the organization's activities due to climate change		Environmental impact management	●	Reported
EC3 Coverage of the organization's defined benefit plan obligations	1.8	Human resource management	●	Reported
EC4 Significant financial assistance received from government	1.8	Implementation of national priorities through ROSATOM's role as an agent of government policy.	●	Reported
EC6 Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation		Social and economic capital management Production capital management	●	Reported
EC7 Procedures for local hiring and proportion of senior management hired from the local community in the regions of significant operation*¹⁴		—	●	OJSC Afrikantov Machine-Building Design Bureau, OJSC NIAEP and OJSC Atomenergomash have a well established practice of preferential hiring of senior management from the local communities (if persons within the required competence are available). Senior management comprised personnel who are authorized to make decisions that have a substantial effect on the company's activity on the whole. The proportion of locally hired senior managers in the regions of significant operation: in OJSC Atomenergomash — 100%, in OJSC Afrikantov Machine-Building Design Bureau — 100%, in OJSC NIAEP — over 50%. Information on OJSC ARMZ, OJSC Atomenergoproekt, OJSC SRC NIIAR, OJSC Concern Rosenergoatom, OJSC SPbAEP, OJSC TVEL, OJSC Technsabexport is not provided because this indicator is not applicable, and/or the appropriate data gathering systems are unavailable.
EC8 Development and impact of infrastructure investments and services provided primarily for public benefit (that are not directly linked with production activity) through commercial, in-kind, or pro bono engagement		Human resource management Social and economic capital management	●	Reported
EC9 Understanding and describing significant indirect economic impacts, including the extent of impacts		Social and economic capital management Strengthening innovative development of Russian nuclear technologies and expanding their application	●	Reported

¹⁴ Indicators marked with * are reported (for the purposes of public reporting) for the key organizations in the ROSATOM State Corporation perimeter, namely: OJSC Atomredmetzoloto, OJSC Atomenergomash, OJSC Atomenergoproekt, OJSC SRC NIIAR, OJSC Concern Rosenergoatom, OJSC NIAEP, OJSC Afrikantov Machine-Building Design Bureau, OJSC SPbAEP, OJSC TVEL, OJSC Technsabexport. For more detailed information, please refer to reports of the key organizations of ROSATOM State Corporation (www.rosatom.ru/investor/presentations/).

Indicator	Corresponding number of RSPB basic performance indicator	Report section	Level of reporting	Disclosure (if not disclosed in the text of the Report)
Environmental Performance Indicators				
EN1 Materials used by weight or volume*	—		●	<p>OJSC SRC NIIAR used the following materials in 2012: tubular products (15.1 thous. m), natural gas (98 thous. cu m), fuel oil (2.5 thous. t). The percentage of procured or used materials that were certified by a third party is 100%.</p> <p>OJSC NIAEP used the following materials in 2012: crushed stone (143.8 thous. cu m), sand (83.4 thous. cu m), cement (49.7 thous. cu m), cable (143.5 thous. km). The percentage of procured or used materials that were certified by a third party is 8.26%. Non-returnable materials for NPP construction, except for soil, are procured from outside suppliers.</p> <p>OJSC Afrikantov Machine-Building Design Bureau used the following materials in 2012: metal (1.7 thous. t), various types of gas (37.5 thous. cu m), timber (296 cu m).</p> <p>OJSC TVEL used the following materials in 2012: sulphuric acid (1.6 thous. t), nitric acid (1.3 thous. t), ferrous metals (1.5 thous. t). All raw materials used by OJSC TVEL were procured.</p> <p>Information on OJSC ARMZ, OJSC Atomen-ergoproekt, OJSC Concern Rosenergoatom, OJSC SPbAEP, OJSC Techsnabexport is not provided because this indicator is not applicable, and/or the appropriate data gathering systems are unavailable.</p>
EN2 Percentage of materials used that are recycled input materials*	2.1	—	●	<p>At OJSC Afrikantov Machine-Building Design Bureau, the percentage of materials used that are recycled or reused input materials was 0% in 2012.</p> <p>At OJSC SRC NIIAR, the percentage of materials used that are recycled or reused input materials was less than 0.1% in 2012.</p> <p>In 2012, at OJSC NIAEP the percentage of materials used that are recycled or reused input materials was 60% of the total volume of the excavated soil that was used for backfilling. Soil excavated in the course of earthworks is the only reused input material that is used by OJSC NIAEP for backfilling at the construction sites.</p> <p>Information on OJSC ARMZ, OJSC AEM, OJSC Atomen-ergoproekt, OJSC Concern Rosenergoatom, OJSC SPbAEP, OJSC TVEL, OJSC Techsnabexport is not provided because this indicator is not applicable, and/or the appropriate data gathering systems are unavailable.</p>

Indicator	Corresponding number of RSPB basic performance indicator	Report section	Level of reporting	Disclosure (if not disclosed in the text of the Report)
EN3 Direct energy consumption by primary energy source*	2.2	—	●	<p>In 2012, direct energy consumption by primary energy source at OJSC SRC NIIAR: electric power — $4.2 \cdot 10^5$ GJ, heat — $7.2 \cdot 10^5$ GJ, natural and petroleum gas — $3.9 \cdot 10^6$ GJ.</p> <p>Direct energy consumption by OJSC TVEL amounted to 62.5 mln GJ in 2012 (natural gas — 29.3 mln GJ, coal — 32.8 mln GJ, fuel oil — 0.4 mln GJ).</p> <p>Direct energy consumption by OJSC Afrikantov Machine-Building Design Bureau amounted to 419.9 thous. GJ in 2012 (natural gas — 411.2 thous. GJ, furnace fuel oil — 8.7 thous. GJ).</p> <p>In 2012, direct energy consumption by OJSC Technabexport was: electric power — 2.7 mln MJ, heat energy — 2.2 MJ.</p> <p>Information on OJSC ARMZ, OJSC AEM, OJSC Atomenergoproekt, OJSC Concern Rosenergoatom, OJSC NIAEP, OJSC SPbAEP, OJSC Technabexport is not provided because this indicator is not applicable, and/or the appropriate data gathering systems are unavailable.</p>
EN4 Indirect energy consumption by primary source*	—	—	●	<p>In 2012, indirect energy consumption by OJSC AEM was about 4.6 mln GJ (electric power — 1.6 mln GJ, heating — 3 mln GJ, uranium-235 — 0.024 mln GJ).</p> <p>In 2012, indirect energy consumption by OJSC AEM was about 16.9 mln GJ.</p> <p>In 2012, indirect energy consumption by OJSC SRC NIIAR was: electric power — $2.5 \cdot 10^6$, natural and petroleum gas — $3.9 \cdot 10^6$, furnace fuel oil — $9.1 \cdot 10^4$, diesel fuel — $3.3 \cdot 10^4$, gasoline — $3.0 \cdot 10^4$.</p> <p>Information on OJSC ARMZ, OJSC Atomenergoproekt, OJSC Concern Rosenergoatom, OJSC NIAEP, OJSC Afrikantov Machine-Building Design Bureau, OJSC SPbAEP, OJSC Technabexport is not provided because this indicator is not applicable, and/or the appropriate data gathering systems are unavailable.</p>
EN5 Energy saved due to conservation and efficiency improvements		Environmental impact management	●	Reported
EN6 Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives		Strengthening innovative development of Russian nuclear technologies and expanding their application	◐	Partially reported
EN8 Total water withdrawal by source	2.3	Environmental impact management	●	Reported
EN9 Water sources significantly affected by withdrawal of water by the organization		Environmental impact management	◐	Partially reported
EN10 Percentage and total volume of water recycled and reused	2.4	Environmental impact management	●	Reported

Indicator	Corresponding number of RSPB basic performance indicator	Report section	Level of reporting	Disclosure (if not disclosed in the text of the Report)
EN11 Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas*	—		●	<p>In 2012, OJSC Afrikantov Machine-Building Design Bureau used subsoil of the inconsiderable part of lands of Children's Recreation Camp "Iskra" (Nizhny Novgorod Region, 56th plot of the Vatomsk Forestry of the Borsk Forestry Enterprise) and recreation facility "Raduga" (village of Sobolikha, Nizhny Novgorod Region) for underground water production. The total area of the land used is 0.34 sq km. According to the expert appraisal, this land plot is not of high biodiversity value.</p> <p>In 2012, OJSC AEM used land of the 56th plot of the Vatomsk Forestry of the Borsk Forestry Enterprise located in the Nizhny Novgorod Region. The total area used is 0.35 sq km.</p> <p>OJSC TVEL, OJSC NIAEP, OJSC Concern Rosenergoatom, OJSC SRC NIIAR, OJSC ARMZ do not own, lease or manage any lands having the status of specially protected natural areas and areas of high biodiversity value.</p> <p>Information on OJSC Atomenergoproekt, OJSC SPbAEP, OJSC Techsnabexport is not provided because this indicator is not applicable, and/or the appropriate data gathering systems are unavailable.</p>
EN12 Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas**¹⁵		Environmental impact management	●	Manifestation of specific radiation effects on vital capacity, reproduction and life-span of terrestrial and aquatic flora and fauna life forms is not expected in the impact zone of ROSATOM State Corporation and its key organizations
EN13 Habitats protected or restored		Environmental impact management	●	Reported
EN14 Strategies, current actions, and future plans for managing impacts on biodiversity		Environmental impact management	◐	Partially reported

¹⁵ Indicators marked with ** are reported in the ROSATOM State Corporation perimeter, and in the perimeter of the key organizations (for the purposes of public reporting) of the Corporation.

Indicator	Corresponding number of RSPG basic performance indicator	Report section	Level of reporting	Disclosure (if not disclosed in the text of the Report)
EN16 Total direct and indirect greenhouse gas emissions by weight**	2.5	Environmental impact management	●	<p>Total direct and indirect greenhouse gas emissions by OJSC ARMZ (OJSC PPGH) amounted to 2.7 mln t in CO₂ equivalent in 2012.</p> <p>In 2012, total direct and indirect greenhouse gas emissions (non-radioactive pollutants emissions into the atmosphere) by OJSC SRC NIAR amounted to 503.871 t in CO₂ equivalent, of these: less than 0.001 t/y of methane (0.000% of the total annual volume of emissions), 0.001 t/y of ozone (0.0002% of the total annual volume of emissions). Total: 0.001 t/y. Volumes of pollutants emissions are determined by laboratory analyses of air and industrial emissions samples. ALI for methane is 1. ALI for ozone has not been specified. No other greenhouse gas emissions have been recorded.</p> <p>In 2012, total direct and indirect greenhouse gas emissions by OJSC TVEL amounted to 951.5 t in CO₂ equivalent.</p> <p>In 2012, total direct greenhouse gas emissions by OJSC Afrikantov Machine-Building Design Bureau amounted to 22,142.8 t in CO₂ equivalent, there were no indirect greenhouse gas emissions.</p> <p>In 2012, total direct greenhouse gas emissions by OJSC NIAEP amounted to 10,514.0 t, and indirect emissions amounted to 8,056.02 t in CO₂ equivalent.</p> <p>Information on OJSC AEM, OJSC Atomenergoproekt, OJSC Concern Rosenergoatom, OJSC NIAEP, OJSC SPbAEP, OJSC Techsnabexport is not provided because this indicator is not applicable, and/or the appropriate data gathering systems are unavailable.</p>
EN17 Other relevant indirect greenhouse gas emissions by weight**	2.5	Environmental impact management	●	<p>Other indirect greenhouse gas emissions related to the operations of the key organizations of ROSATOM State Corporation are inconsiderable and amounted to 8,276.4 t in 2012.</p>
EN19 Emissions of ozone-depleting substances by weight*		Environmental impact management	●	<p>Emissions of ozone-depleting substances by the key organizations of ROSATOM State Corporation amounted to 0.0818 t in CFC-11 equivalent in 2012.</p>
EN20 NO, SO, and other significant air emissions by type and weight	2.6	Environmental impact management	●	Reported
EN21 Total water discharge by quality and destination	2.7.2 2.8	Environmental impact management	●	Reported
EN22 Total weight of waste by type and disposal method	2.8	Environmental impact management	●	Reported

Indicator	Corresponding number of RSPB basic performance indicator	Report section	Level of reporting	Disclosure (if not disclosed in the text of the Report)
EN23 Total number and volume of significant spills*	2.9 2.10	—	●	In 2012, the key organizations of ROSATOM State Corporation reported two non-routine events associated with pollutant spills. As a result of a non-process failure at the Smolensk NPP, approximately 180 kg (estimated data) of petroleum products were released into the Desnogorsk water reservoir, and spread across approximately 150,000 sq m of water surface. This event is classified as an unauthorized discharge of oil products into a water body, rather than an accidental and massive release. Additionally, a leak of 0.893 cu m of fuel oil from the process equipment to the industrial site storm sewer occurred at the CHP plant of OJSC SRC NIIAR on 25 August, 2012. The leak was contained. The spilled fuel oil was collected and recovered. The event caused no environmental damage, as evidenced by the samples analyses performed by specialty organizations.
EN24 Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally		Environmental impact management	●	Reported
EN26 Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation	2.11	Environmental impact management Nuclear and radiation safety, and the comprehensive resolution of outstanding “nuclear legacy” problems	●	Reported
EN27 Percentage of products sold and their packaging materials that are reclaimed by category*		—	●	Specific features of the ROSATOM processes, products and services preclude products and their packaging materials from being recruited by consumers for reclaiming
EN28 Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with environmental laws and regulations		Environmental impact management	●	Reported
EN29 Significant environmental impacts of transporting products and other goods and materials used for the organization’s operations, and transporting members of the workforce			●	The ROSATOM State Corporation policy in the field of special transportation is aimed at ensuring a high level of nuclear and radiation safety during transportation, expedited delivery and security of special cargoes. For more detailed information, please refer to http://www.rosatom.ru/aboutcorporation/activity/safety/safety_reports/ .
EN30 Total environmental protection expenditures and investments by type	2.12	Environmental impact management	●	Reported

Indicator	Corresponding number of RSPB basic performance indicator	Report section	Level of reporting	Disclosure (if not disclosed in the text of the Report)
Labor Practices and Decent Work Performance Indicators				
LA1 Total workforce by employment type, employment contract, and region broken down by gender*	3.1.1	Human resource management	●	***
LA2 Total number and rate of new employee hires and employee turnover by age group, gender, and region*	3.1.2 3.1.3	Human resource management	●	****

*** In 2012, the total staff list of OJSC ARMZ increased by 1,182 employees compared to the two previous years. The number of personnel subject to dosimetric control grew from 119 persons in 2010 and 103 persons in 2011 to 215 persons in 2012. Of the OJSC ARMZ personnel, 11,445 persons work under permanent employment contracts and 405 — under temporary employment contracts.

In 2012, the total workforce of OJSC AEM comprised: males — 14,055, females — 8,450, male personnel subject to dosimetric control — 0, female personnel subject to dosimetric control — 0. The total number of employees by type of employment contract and gender: full-time males — 15,294 employees, full-time females — 6,791 employees, part-time males — 324 employees, part-time females — 122 employees. Total number of full-time staff by type of contract and gender: males under permanent contract — 13,130 employees, females under permanent contract — 7,866 employees, males under temporary contract — 925 employees, females under temporary contract — 584 employees.

Total workforce by region — males: Moscow — 1,387, Moscow Region — 3,791, Saint-Petersburg — 730, Leningrad Region — 127 employees.

In 2012, the total staff list of OJSC AEP consisted of: 1,730 males, and 1,552 females. The total workforce by region: Moscow — 2,033, city of Novovoronezh of the Voronezh Region — 755, Volgograd — 157, other — 337 employees.

In 2012, the total staff list of OJSC SRC NIIAR consisted of: 2,940 males, and 1,622 females. The total workforce by type of employment contract and gender: males under permanent contract — 2,780 employees, females under permanent contract — 1,509 employees, males under fixed-term contract — 160 employees, females under fixed-term contract — 133 employees.

In 2012, the total staff list of OJSC Concern Rosenergoatom consisted of: 24,214 males, and 9,254 females. Total number of full-time employees — 100%. Total number of personnel working under permanent employment contracts — 100%.

In 2012, the total staff list of OJSC NIAEP consisted of 3,379 employees. Total number of employees by type of employment contract: 3,347 full-time employees, 32 part-time employees. Total number of permanent staff — 2,940 employees.

In 2012, the total staff list of OJSC Afrikantov Machine-Building Design Bureau consisted of: 2,840 males, and 1,537 females. Total number of employees by employment type: permanent employment contract — 3,789 persons, fixed-term employment contract — 588 persons.

In 2012, the total staff list of OJSC SPbAEP consisted of 1,889 employees. The total of 1,809 personnel working under permanent employment contracts were further broken down as follows: 1,727 full-time employees, and 82 part-time employees. Out of 80 employees working under fixed-term employment contracts, 59 persons were full-time and 21 persons were — part-time workers.

In 2012, the total staff list of OJSC TVEL consisted of: 19,558 males, and 11,406 females. Total personnel by type of employment: 34,730 full-time employees, and 38 part-time employees. Total permanent staff by type of employment contract: under permanent contract — 34,088 (98.04%) employees, and under fixed-term contract — 680 (1.96%) employees.

In 2012, OJSC Technobexport employed 365 full-time, and 0 part-time employees. Total staff by type of employment contract: under permanent contract — 349 employees, under fixed-term contract — 16 employees.

**** In 2012, OJSC AEM hired new employees as follows: 1,028 males under 30, 1,444 males between 30 and 50, and 889 males older than 50; 348 females under 30, 377 females between 30 and 50, and 676 females older than 50.

In 2012, OJSC AEP hired the total of 491 new employees. The total of 248 employees who left the company were broken down as follows: voluntary resignation — 130 employees (52.42%), redundancy — 0, employment contract expiration — 75 employees (30.2%), transfer to another job — 23 employees (9.27%), by mutual agreement of the parties — 17 employees (6.86%), for other reasons — 3 employees (1.21%). Total number of new employee hired: 289 in Moscow, and 202 in branches. Total number of dismissals: 175 in Moscow, and 73 in branches.

In 2012, OJSC SRC NIIAR hired 241 male and 78 female new employees (of these: 127 males and 36 females under 30; 75 males and 33 females between the age of 30 and 50; 39 males and 9 females older than 50). The total number of employees who were hired and left the organization during the reporting period: 51 males, 21 females (of these: 31 males and 7 females under 30, 12 males and 10 females between 30 and 50, 8 males and 4 females older than 50).

In 2012, the turnover rate of the OJSC Concern Rosenergoatom central staff was 5.03% (2.63% among males, and 2.4% among females).

In 2012, the total staff list of OJSC NIAEP consisted of 3,075 employees, 246 employees (129 males, and 117 females) left the organization, personnel turnover rate was 8%.

The number of employees who voluntarily resigned from OJSC Afrikantov Machine-Building Design Bureau in 2012 was 141 persons (of these: 46 employees under the age of 30, 39 employees between 30 and 50, and 56 employees aged 51 and older). Personnel turnover rate: males — 2.7% (77 employees), females — 1.5% (23 employees).

The total number of employees who left OJSC SPbAEP in 2012 constituted 235 persons (143 males, and 92 females), personnel turnover rate: males — 17.5%, females — 8.6%.

Resigned employees by age: 49 persons (8.8%) aged under 30, 85 employees (11.3%) — between 30 and 50, 101 employee (17.3%) — older than 50.

The number of employees who left OJSC TVEL in 2012: in Moscow — 443 employees, in Moscow Region — 536 employees. The number of employees who were hired in Moscow — 289, in Moscow Region — 332, left the organization during the reporting period in Moscow — 38, in Moscow Region — 38. Personnel turnover rate: 5.1% in Moscow, and 1.5% in Moscow Region. The total number of employees who left the organization — 7,717 (5,005 males, and 2,712 females), newly hired — 2,206 (1,335 males, and 871 females), of which 159 employees (101 males, and 58 females) left the organization during the reporting period. Personnel turnover rate is 2% (both males and females).

The total number of employees who left OJSC Technobexport in 2012: 13 employees aged under 30, 40 employees between 31 and 50, 8 employees older than 50. Total number of employees who left the organization during the reporting period, by gender: 32 males, and 29 females.

Indicator	Corresponding number of RSPP basic performance indicator	Report section	Level of reporting	Disclosure (if not disclosed in the text of the Report)
LA3 Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operation		Human resource management	●	Reported
LA4 Percentage of employees covered by collective bargaining agreements	3.1.4	Management of social and economic capital	●	Reported
LA5 Minimum notice period(s) regarding significant operational changes, including whether it is specified in the collective agreements*		—	●	Key Institutions of the State Corporation ROSATOM observe the rules of the Labour Code of the Russian Federation and inform their employees about any upcoming changes, decided upon by parties to an employment agreement, no later than 2 months in advance. This provision is written into the collective agreement
LA7 Rates of injury, occupational diseases, lost days, and absenteeism in the workplace and total number of work-related fatalities, by region and by gender*	3.1.5-3.1.8	—	●	<p>In 2012, JSC ARMZ occupational injury rate was 0.08, the level of occupational diseases — 0.75, lost days, and absenteeism in the workplace — 2.2. The total number of deaths related to work — one man, in the Trans-Baikal region.</p> <p>In 2012, JSC AEM the level of production injuries was 0,212, the level of occupational diseases — 0.185, lost days — 2,043 and absences — 108.665. The total number of work-related deaths — two men.</p> <p>In 2012, JSC NIIAR occupational injury rate was 0.135, the level of occupational diseases — 0, lost days — 1.46, and absences — 10.8. The total number of deaths related to work — 0.</p> <p>In 2012, JSC SPbAEP occupational injury rate was 0.335, occupational diseases — 0, lost days — 4.52, and absenteeism — 6,769. The total number of work-related deaths — 0.</p> <p>Information on JSC AEP, JSC Concern Rosenergoatom, JSC NIAEP, JSC OKBM, JSC fuel elements, JSC TENEX is not given because of the non-applicability of the indicator and / or the lack of appropriate data collection systems.</p>

Indicator	Corresponding number of RSPB basic performance indicator	Report section	Level of reporting	Disclosure (if not disclosed in the text of the Report)
LA8 Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases*	—		●	***
LA9 Health and safety topics covered in formal agreements with trade unions		Human resource management	●	Reported
LA10 Average hours of training per year per employee by gender, and by employee category*	3.1.10	—	●	****
LA11 Programs for skills management and lifelong training that support the continued employability of employees and assist them in managing careers endings		Human resource management	●	Reported
LA12 Percentage of employees receiving regular performance and career development reviews, by gender		Human resource management	◐	Partially reported

Компания	Адресат программы	Образование/ обучение	Консультирование	Профилактика/ контроль риска	Лечение
OJSC ARMZ	E	+	+	+	+
	EF	-	-	-	-
	CM	-	-	-	-
OJSC Atomenergomash	E	-	+	+	+
	EF	-	+	+	+
	CM	-	-	-	-
OJSC SRC NIIAR	E	-	-	-	+
	EF	-	-	-	+
	CM	-	-	-	-
OJSC Concern Rosenergoatom	E	-	-	-	+
	EF	-	-	-	+
	CM	-	-	-	-
OJSC NIAEP	E	+	-	-	-
	EF	-	-	-	-
	CM	-	-	-	-
OJSC Afrikantov Machine-Building Design Bureau	E	-	+	+	+

E — employees
 EF — employee's family
 CM — community members

Information on OJSC Atomenergoproekt, OJSC SPbAEP, OJSC TVEL, OJSC Technabexport, is not provided because this indicator is not applicable and/or the appropriate data gathering systems are unavailable.

**** At OJSC ARMZ average hours of training per employee constituted 10 hours for executives, and 60 hours for workers in 2012.

At OJSC AEM average hours of training per employee in 2012 constituted 11.5 hours for male executives, 2.9 hours for female executives; 241.7 hours for male workers, and 61.4 hours for female workers.

At OJSC AEP average hours of training per employee constituted 25.11 hours for executives, and 30.9 hours for workers in 2012.

In OJSC SRC NIIAR average hours of training per employee constituted in 2012 32.9 hours for male executives, 25.8 hours for female executives, 6.4 hours for male workers, and 6 hours for female workers.

At OJSC Concern Rosenergoatom average hours of training per employee constituted in 2012 138.1 hours for executives, and 138.2 hours for workers.

At OJSC NIAEP average hours of training per employee constituted in 2012 6.7 hours for executives, and 22.4 hours for workers.

At OJSC Afrikantov Machine-Building Design Bureau average hours of training per employee in 2012 constituted 35.75 hours for executives, and 30 hours for workers.

At OJSC SPbAEP average hours of training per employee constituted in 2012 36.2 hours for executives, and 24 hours for workers.

At OJSC TVEL average hours of training per employee constituted in 2012 38 hours for executives, and 47 hours for workers.

At OJSC Technabexport average hours of training per employee constituted in 2012 25.65 hours for executives, and 29.09 hours for specialists.

Indicator	Corresponding number of RSPB basic performance indicator	Report section	Level of reporting	Disclosure (if not disclosed in the text of the Report)
LA13 Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity*	3.1.12	Human resource management		***
LA14 Ratio of basic salary and remuneration of women to men by employee category by significant locations of operation*	—			****

*** 2012 data: OJSC ARMZ personnel breakdown by gender and age: 72% males, 28% females; 43% aged under 35, 32% aged between 36 and 50, 25% are older than 50. Number/percentage and age composition of executives: total – 66 executives, of which 57 males (86.35%), and 9 females (13.64%); 6 executives (9.09%) aged under 35, 27 executives (40.91%) aged between 36 and 50, 33 executives (50.0%) older than 50.

Age composition of OJSC AEM governance bodies: 4 males, 1 female; 1 executive aged under 30, 3 executives aged between 30 and 50, 1 executive older than 50. Employees breakdown by age: total – 31 employees, of which 15 males and 16 females; 9 employees aged under 30, 19 employees aged between 30 and 50, 3 employees older than 50. In 2012, average age of the OJSC AEP executives was 50.15 years. Number of employees under 35 – 1,328 persons, between 36 and 50 – 907 persons, older than 51 – 1,047 persons.

Age and gender composition of the OJSC SCR NIIAR governance bodies: 6 males (0.16%), 1 female (0.02%); of which, under 30 – 0, between 30 and 50 – 4 (3 males and 1 female), older than 50 – 3 males and 0 females. Other executives: total males – 538 (11.78%), females – 184 (4.03%), of which, under 30 – 22 males and 3 females; between 30 and 50 – 192 males and 86 females; older than 50 – 324 males and 95 females. Age and gender composition of employees: aged under 30 – 506 males and 203 females; aged between 30 and 50 – 913 males and 619 females; older than 50 – 975 males and 616 females.

Composition of the OJSC Concern Rosenergoatom Board of Directors and breakdown by age: total – 5 members (5 males – 100%, 0 females), of which, aged under 30 – 0(0%), aged between 30 and 50 – 1 (20%), older than 51 – 5 (80%). Composition and breakdown by age of the executives: total – 28 persons, of which 27 males (97%) and 1 female (3%), aged under 30 – 0, between 30 and 50 – 1 male (3%) and 0 females (0%), older than 50 – 27 males (97%) and 1 female (3%).

Number, age and gender composition of the OJSC NIAEP executives: aged under 30 – 69 executives (44 males and 25 females), between 31 and 50 – 455 executives (307 males and 148 females), older than 50 – 299 executives (214 males and 85 females). Age and gender composition of employees: aged under 30 – 434 males and 445 females, between 31 and 50 – 483 males and 626 females, older than 50 – 251 males and 317 females.

Percentage and age composition of the OJSC Afrikantov Machine-Building Design Bureau executives: total – 702 executives (16% of the staff size), of which, 597 males (13.6%), 105 females (2.4%); aged under 30 – 57 executives (1.3% of the total), between 31 and 50 – 353 executives (8.06%), older than 51 – 292 executives (6.67%). Employees breakdown by age and gender: total – 4,377 employees, of which, 2,840 males (64.9%) and 1,537 females (35.1%); aged under 30 – 1,038 employees (23.7%), between 31 and 50 – 43.3%, older than 51 – 33%.

Age and gender composition of the OJSC SPbAEP executives: total – 26 executives, of which 22 males (0.85% of the staff size) and 4 females (0.15%); aged under 30 – 0 (0%), between 30 and 50 – 12 executives (0.46%), older than 50 – 14 executives (0.54%). Employees breakdown by age: aged under 30 – 555 employees, between 31 and 50 – 750 employees, older than 50 – 584 employees.

Age and gender composition of the OJSC TVEL executives: aged under 34 – 4 males and 1 female, aged under 54 – 51 male and 7 females, older than 55 – 34 males and 0 females. Employees breakdown by gender and age: aged under 34 – 5,668 males and 3,298 females, aged under 54 – 11,721 males and 6,771 females, older than 55 – 2,169 males and 1,337 females.

Percentage of the OJSC Technabexport executives aged under 35 was 48% in 2012. Among employees, males accounted for 39.7% and females – 60.3%. The company employed 9 top managers (7 males and 2 females). Age composition of the employees: aged under 30 – 29.9%, between 31 and 50 – 56.2%, older than 51 – 14.0%.

**** 2012 data: At OJSC AEM, the ratio of basic salary of men to women by employee category (in the regions of significant operation) equaled 1.

At OJSC SRC NIIAR, the ratio of basic salary of men to women by employee category (in the regions of significant operation) equaled 1.14 in the category of “workers”, 0.98 in the category of “office employees”, 1.09 in the category of “specialists” and 1.17 in the category of “executives”.

At OJSC NIAEP, the ratio of basic salary of men to women by employee category (central staff) was 1 in the category of “workers”, 0.53 in the category of “other office employees”, 1 in the category of “specialists” and 1.3 in the category of “executives”.

At OJSC Afrikantov Machine-Building Design Bureau, the ratio of basic salary of men to women by employee category (in the regions of significant operation) was 1.

At OJSC TVEL, the ratio of basic salary of men to women by employee category (in the regions of significant operation) was 1.

At OJSC Technabexport, the ratio of basic salary of men to women by employee category (in the regions of significant operation) within one grade was 1. Differences in the basic salary of men and women stem from the fact that positions occupied by female executives and those of male executives belong to different grades.

At OJSC SPbAEP, the ratio of basic salary of men to women by employee category (in the regions of significant operation) was 1.35 in the category of “workers”, 1.02 in the category of “specialists” and 1.11 in the category of “executives”.

Indicator	Corresponding number of RSPB basic performance indicator	Report section	Level of reporting	Disclosure (if not disclosed in the text of the Report)
<p>LA15 Return to work and retention rates after parental leave, by gender*</p>	<p>—</p>		<p>●</p>	<p>At OJSC TVEL, the number of employees who returned and continued to work with the organization after parental leave was 2 females.</p> <p>At OJSC NIAEP, the number of employees who returned and continued to work with the organization after parental leave was 29 females.</p> <p>At OJSC Afrikantov Machine-Building Design Bureau, the number of employees who returned and continued to work with the organization after parental leave was 67 females.</p> <p>At OJSC Techsnab, the number of employees who returned to work after parental leave was 11 persons, of which 10 continued to work with the organization.</p> <p>Information on OJSC ARMZ, OJSC AEM, OJSC SRC NIIAR, OJSC Concern Rosenergoatom, OJSC Atomenergoproekt, OJSC SPbAEP, OJSC TVEL is not provided because this indicator is not applicable and/or the appropriate data gathering systems are not available.</p>
<p>Society Performance Indicators</p>				
<p>S01 Percentage of operations with implemented local community engagement, impact assessments, and development programs*</p>	<p>1.1.1</p>	<p>Social and economic capital management Environmental impact management</p>	<p>●</p>	<p>Reported</p>
<p>S02 Percentage and total number of business units analyzed for risks related to corruption**</p>		<p>Risk management</p>	<p>●</p>	<p>At OJSC ARMZ, the percentage and total number of business units analyzed for risks related to corruption is 100% (6 enterprises).</p> <p>At OJSC AEM, the percentage and total number of business units analyzed for risks related to corruption is 90.5% (19 of 21 enterprises).</p> <p>At OJSC NIAEP, the percentage and total number of business units analyzed for risks related to corruption is 100% (3 subsidiaries and affiliates, 7 branches, 5 representative offices).</p> <p>At OJSC Afrikantov Machine-Building Design Bureau, the percentage and total number of business units analyzed for risks related to corruption is 25% (33 of 131 subdivisions).</p> <p>Information on OJSC Atomenergoproekt, OJSC SRC NIIAR, OJSC Concern Rosenergoatom, OJSC Atomenergoproekt, OJSC SPbAEP, OJSC TVEL, OJSC Techsnabexport is not provided because this indicator is not applicable and/or the appropriate data gathering systems are not available.</p>

Indicator	Corresponding number of RSPB basic performance indicator	Report section	Level of reporting	Disclosure (if not disclosed in the text of the Report)
S03 Percentage of employees trained in organization's anti-corruption policies and procedures*	—		●	ROSATOM State Corporation provides training for its personnel in anti-corruption policies and procedures that are in place in the organization. The total of 31,226 employees (about 26.2% of the key organizations staff) received briefings on the provisions and regulations on antitheft and anti-corruption measures.
S04 Actions taken in response to incidents of corruption		Corporate governance	●	Reported
S05 Public policy positions and participation in public policy development and lobbying	3.3.4	Implementation of national priorities through ROSATOM's role as an agent of government policy.	●	Reported
S06 Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country			●	In 2012, ROSATOM State Corporation did not make any financial and in-kind contributions to political parties, politicians, and related institutions.
S08 Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations		Environmental impact management	●	In 2012, the amount of monetary fines for non-compliance with laws and regulations (including fines and penalties levied as a result of field tax audits) totaled 91 mln RUB. No non-monetary sanctions were imposed during the reporting year.
S09 Operations with significant potential or actual negative impacts on local communities		Social and economic impact management	●	Reported
S010 Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities		Social and economic capital management Social and goodwill capital management	●	Reported
Product Responsibility Performance Indicators				
PR1 Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures		Risk management Production capital management Nuclear and radiation safety, and the comprehensive resolution of outstanding "nuclear legacy" problems Environmental impact management	●	Reported
PR2 Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes*	—		●	No incidences of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services.

Indicator	Corresponding number of RSPP basic performance indicator	Report section	Level of reporting	Disclosure (if not disclosed in the text of the Report)
PR3 Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements	3.4.1	Risk management Nuclear and radiation safety, and the comprehensive resolution of outstanding “nuclear legacy” problems Environmental impact management	●	No incidences of non-compliance with regulations and voluntary codes concerning product and service information and labeling.
PR4 Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes*	—	—	●	No incidences of non-compliance with regulations and voluntary codes concerning product and service information and labeling.
PR5 Practices related to customer satisfaction, including results of surveys measuring customer satisfaction	—	International business	●	—
PR6 Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship*	—	—	●	At the ROSATOM State Corporation level, no programs and strategies have been adopted for ensuring compliance with standards and voluntary certification requirements related to marketing communications, that are obligatory for the key organizations. In their marketing activity, all organizations of ROSATOM are guided by existing RF laws, specifically, Federal Law No. 38-FZ, dated 13 March, 2006 “On Advertising”.
PR7 Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes*	—	—	●	No recorded cases of non-compliance with regulations and voluntary certification requirements concerning marketing communications, including advertising, promotion, and sponsorship.
PR8 Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data*	—	—	●	No complaints regarding breaches of customer privacy and losses of customer data.
PR9 Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	—	—	●	In 2012, the key organizations (except for OJSC SPbAEP) incurred no significant fines for non-compliance with laws and regulations concerning the provision and use of products and services. During the reporting period, OJSC SPbAEP paid a total of 250,000 RUB as fines imposed under administrative law for violation of the RF laws on nuclear energy use.

Indicator	Corresponding number of RSPB basic performance indicator	Report section	Level of reporting	Disclosure (if not disclosed in the text of the Report)
Human Rights Performance Indicators				
HR1 Percentage and total number of significant investment agreements and contracts that include clauses incorporating human rights concerns, or that have undergone human rights screening*	—		●	In 2012, investment agreements signed by ROSATOM State Corporation did not contain provisions on human rights, and were not evaluated in terms of human rights.
HR2 Percentage of significant suppliers, contractors, and other business partners that have undergone human rights screening, and actions taken*	—		●	In 2012, suppliers and contractors of ROSATOM State Corporation did not undergo human rights screening.
HR3 Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained*	—		●	In 2012, employee training on policies and procedures concerning aspects of human rights that are relevant to operations was performed at OJSC SPbAEP. Training was provided to 115 employees of the organization for 2 hours. Information on OJSC ARMZ, OJSC AEM, OJSC Atomenergoproekt, OJSC SRC NIAR, OJSC Concern Rosenergoatom, OJSC NIAEP, OJSC Afrikantov Machine-Building Design Bureau, OJSC Atomenergoproekt, OJSC NVEL, OJSC Techsnabexport is not provided because this indicator is not applicable, and/or the appropriate data gathering systems are unavailable.
HR4 Total number of incidents of discrimination and actions taken*	3.2.2	—	●	In 2012, there were no cases revealed of discrimination on the basis of gender, race, religion, political opinion, national extraction or social origin as defined by the International Labor Organization, or other forms of discrimination in respect to internal/external stakeholders in the activities of organizations of ROSATOM State Corporation.
HR5 Operations and significant suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and actions taken to support these rights*	—		●	ROSATOM State Corporation does not carry out any operations in which the right to exercise freedom of association and collective bargaining may be violated or be at significant risk.
HR6 Operations and significant suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor*	—		●	ROSATOM State Corporation is not engaged in activities with significant risk of child labor.
HR7 Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor*	—		●	ROSATOM State Corporation is not engaged in activities with significant risk of forced or compulsory labor.

Indicator	Corresponding number of RSPB basic performance indicator	Report section	Level of reporting	Disclosure (if not disclosed in the text of the Report)
HR9 Total number of incidents of violations involving rights of indigenous people and actions taken*	—		●	No cases involving violations of the rights of indigenous people have been identified.
HR10 Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments*	—		●	All activities of ROSATOM State Corporation are compliant with the human rights laws of its host countries; therefore, no additional inspections or evaluations were carried out.
HR11 Number of grievances related to human rights filed, addressed and resolved through formal grievance mechanisms*	—		●	No grievances related to human rights and human rights protection were filed in the Corporation during the reporting period.
Mining and Metals Performance Indicators (Sector Supplement)				
MM9 Sites where resettlements took place, the number of households resettled in each; and how their livelihoods were affected in the process		Social and economic capital management	●	Reported

APPENDIX 2. INDICATOR CHART OF ROSATOM PUBLIC REPORTING

Indicator	Measure	Report section/chapter
MAIN BUSINESS PERFORMANCE		
Electricity generation for the Russian economy		
1.1.1. Nuclear electricity generation	1.1.1.1. Share of electricity produced by nuclear power plants in the total power output in Russia	Contribution to the social and economic development of the host regions
	1.1.1.2. Electricity generation by NPPs during the reporting year	Electric power division
	1.1.1.3. Net supply of power	Key results Electric power division
1.1.2. NPP utilization	1.1.2.1. Capacity factor of NPPs	Electric power division
1.2.2. Power units service life	1.2.1.2. Increase of thermal capacity of power units (reporting period and total)	Electric power division
	1.2.1.3. Number of upgraded VVER-1000 power units (for the reporting period and total)	Electric power division
	1.2.2.1. Number of power units with safe service life extended up to 15 years during the reporting year	Electric power division
	1.2.2.2. Number of power units NPP for which working documentation was developed to extend service life and for upgrade and retrofit	Electric power division
1.2.3. Operation of power units	1.2.3.3. Duration of scheduled repairs	Electric power division Production capital management
	1.2.3.5. Total reduction in duration of scheduled repairs, with rescheduling, including: – reduction of repair-days – rescheduling of the start of repair work (total repair-days unchanged)	Electric power division Production capital management
	1.2.3.6. Additional generation of electric power due to reduction in duration of scheduled repairs	Electric power division Production capital management
	1.2.3.7. Availability factor	Electric power division
1.3.1. Construction and commissioning of new power units in Russia	1.3.1.1. Number of power units currently under construction in Russia	Engineering activities
	1.3.1.2. Number of commissioned power units	Electric power division
	1.3.1.3. Spending on construction of new power units, thous. RUB	Engineering activities
1.4.1. Producing complete sets	1.4.1.1. Number of complete sets produced during the reporting period	Machine-Building division

Indicator	Measure	Report section/chapter
Achieving leadership for Russian companies in world markets		
2.1.1. Financial performance	2.1.1.1. Revenue	Key results Financial and economic performance
	2.1.1.4. Business expenses	Financial and economic performance
	2.1.1.5. Gross profit	Financial and economic performance
	2.1.1.6. Earnings before interest, tax, depreciation and amortization (EBITDA)	Key results
	2.1.1.8. Net operating profit after taxes (NOPAT)	Financial and economic performance
	2.1.1.9. Net profit	Financial and economic performance
2.1.2. Efficiency	2.1.2.1. Labor productivity	Key results Fuel division Machine-Building Division Electric power division
2.1.3. Financial efficiency	2.1.3.1. Inventory turnover, days	Financial and economic performance
	2.1.3.2. Receivables turnover, days	Financial and economic performance
	2.1.3.3. Payables turnover, days	Financial and economic performance
	2.1.3.6. Return on sales (ROS), %	Financial and economic performance
	2.1.3.7. Return on assets (ROA), %	Financial and economic performance
	2.1.3.8. Return on equity (ROE), %	Financial and economic performance
	2.1.3.11. Cost of sold goods, products, works, and services	Financial and economic performance
2.2.2. Contract volumes	2.2.2.1. Total value of long-term contracts with buyers (buyer contract portfolio) (for specific nuclear markets)	International business
	2.2.2.2. Five-year foreign contract portfolio	Key results International business
	2.2.2.3. Increment of contract portfolio during the reporting year	International business
2.2.4. Risk management	2.2.4.1. Description of risks and risk management system	Risk management
2.2.5. Production base development	2.2.5.1. Amount of funds allocated for the investment policy implementation (including the proportion of funds allocated for technological re-equipment and upgrade)	Investment management
	2.2.5.2. Capital investments in the production assets	Engineering activities
2.2.6. Financial stability	2.2.6.2. Debt-to-equity ratio	Financial and economic performance
	2.2.6.4. Ratio between the funds received from the state budget and own funds gained from sales of products (works, services)	Implementation of national priorities through ROSATOM's role as an agent of government policy.
	2.2.6.5. Working capital ratio	Financial and economic performance
	2.2.6.6. Quick assets ratio	Financial and economic performance
2.3.1. Position of Russian engineering on the global market for NPP construction	2.3.1.1. Number of power units under construction outside Russia (during the reporting period)	International business
	2.3.1.2. Number of commissioned power units (during the reporting period)	International business

Indicator	Measure	Report section/chapter
2.3.3. Raw materials	2.3.3.1. Market share on natural raw materials market in natural uranium equivalent	Target markets
	2.3.3.2. World's recoverable uranium resources	Target markets
	2.3.3.3. Uranium production	Mining division
	2.3.3.4. Controlled natural uranium resources with competitive mining cost	Mining division
	2.3.3.5. Investments in uranium exploration	Mining division
2.3.4. Front end of the nuclear fuel cycle	2.3.4.1. Market share in fuel-cycle products and services (enriched uranium products, enrichment, conversion), by region	Target markets
	2.3.4.3. Supply of nuclear fuel and fuel assembly components for NPPs of Russian design, breakdown by region	Target markets
	2.3.4.4. Supply of nuclear fuel and fuel assembly components for foreign-designed NPPs, breakdown by region	International business
	2.3.4.5. Share of market for nuclear fuel and fuel assemblies – 17%	Target markets
	2.3.4.6. Share of market for MOX fuel	Target markets
	2.3.4.7. Proportion of NPP capacity covered by fuel from Russian suppliers (breakdown by country)	Target markets
	2.3.4.8. Number of reactors provided with fuel from Russian suppliers	Target markets
2.3.5. Exports	2.3.5.1. Export supplies (by products and regions)	International business
2.4.1. International legal infrastructure to promote Russian firms on global markets for nuclear technologies and services	2.4.1.1. Number of inter-governmental and inter-departmental agreements signed on cooperation in use of nuclear energy	International cooperation
	2.4.1.2. Number of countries with which a legislative basis for cooperation is in place	International cooperation
2.4.2. Development of international cooperation	2.4.2.1. List and description of alliances and joint projects with foreign Partners	International business
	2.4.2.2. Agreements with the IAEA	International cooperation
2.4.3. Enforcement of nuclear non-proliferation	2.4.3.1. Major international projects and initiatives proposed by Russia	International cooperation
	2.4.3.2. Compliance by ROSATOM enterprises and organizations with international obligations and national law in export control	International cooperation
Maintaining the nuclear arsenals at a level ensuring the nuclear deterrence policy		
3.1.1. Performance of Government Defense Contracts	3.1.1. Progress in fulfillment of Government Defense Contracts, in percent	Nuclear Weapons Complex
Ensuring nuclear and radiation safety		
4.1.1. Creating national systems to handle radioactive waste and spent nuclear fuel (SNF)	4.1.1.1. Enactment of federal laws to establish national systems for radioactive waste and spent nuclear fuel handling — UNS RAW and UNS SNF	Ensuring nuclear and radiation safety
4.1.4. Emergency response and emergency preparedness	4.1.4.1. Description of the emergency response system, including improvements to systems of safety monitoring and control at nuclear energy facilities; creation of professional rescue units	Ensuring nuclear and radiation safety
	4.1.4.2. Description of alarm and communication systems	Ensuring nuclear and radiation safety
	4.1.4.3. Description of systems to protect employees, the general public and the environment in case of radiation emergency	Ensuring nuclear and radiation safety
4.1.5. Ensuring physical protection of nuclear power facilities	4.1.5.1. Mechanisms to ensure physical protection of nuclear power facilities and to combat the threat of nuclear terrorism	Resolution of outstanding “nuclear legacy” problems
	4.1.5.2. Inspection of physical protection at facilities	Ensuring nuclear and radiation safety

Indicator	Measure	Report section/chapter
4.1.6. Building and modernizing nuclear and radiation safety infrastructure	4.1.6.1. Commissioning storage facilities for SNF (cumulative)	Resolution of outstanding “nuclear legacy” problems
	4.1.6.2. Commissioning SNF reprocessing facilities	Resolution of outstanding “nuclear legacy” problems
	4.1.6.3. Commissioning radioactive waste repositories	Resolution of outstanding “nuclear legacy” problems
	4.1.6.4. Commissioning RAW disposal facilities	Resolution of outstanding “nuclear legacy” problems
	4.1.6.5. Implementation of plans for construction and modernization of nuclear and radiation safety infrastructure facilities	Resolution of outstanding “nuclear legacy” problems Mining division Machine-Building Division Fuel division Electric power division
4.1.7. Development of advanced technologies for handling radioactive waste and spent nuclear fuel	4.1.7.1. Implementation of the plan of work to develop advanced technologies for handling radioactive waste and spent nuclear fuel	Resolution of outstanding “nuclear legacy” problems
4.2.2. Non-compliance when handling materials that represent nuclear and radiation hazard	4.2.2.1. Number of reportable events at nuclear facilities as per the international nuclear event scale (INES)	Ensuring nuclear and radiation safety
	4.2.2.2. Number of events that qualify above Level 2 on the INES	Ensuring nuclear and radiation safety
4.2.3. Exceeding of permissible level of radioactive emissions from NPP	4.2.3.1. Exceeding permissible levels of radioactive emissions from NPP	Ensuring nuclear and radiation safety
4.3.1. Decommissioning of facilities that represent nuclear and radiation hazards	4.3.1.1. Inventory of NRH facilities (cumulative)	Resolution of outstanding “nuclear legacy” problems
	4.3.1.2. Number of NRH facilities shut down	Resolution of outstanding “nuclear legacy” problems
	4.3.1.3. Number of NRH facilities prepared for decommissioning	Resolution of outstanding “nuclear legacy” problems
	4.3.1.4. Number of decommissioned NRH facilities	Resolution of outstanding “nuclear legacy” problems
4.3.2. Disposal and recycling of facilities that represent nuclear and radiation hazards	4.3.2.1. Number of disposed nuclear submarines and ships with nuclear propulsion units (NPU)	Resolution of outstanding “nuclear legacy” problems
	4.3.2.2. Number of disposed radio-isotope thermoelectric generators	Resolution of outstanding “nuclear legacy” problems
4.4.1. Reclamation of contaminated areas	4.4.1.1. Area of reclaimed radiation-contaminated lands	Environmental safety
4.4.2. Changes in volume of accumulated	4.4.2.1. Accumulated spent nuclear fuel (total, legacy, one year)	Ensuring nuclear and radiation safety
4.4.3. Changes in volume of accumulated radioactive waste	4.4.3.1. Accumulated radioactive waste (total, legacy, one year – LLW, ILW, HLW)	Ensuring nuclear and radiation safety
4.4.5. Processing of accumulated radioactive waste	4.4.5.1. Radioactive waste allocated for long-term storage, relative to total waste generated annually in Russia	Ensuring nuclear and radiation safety
Development of innovative nuclear technologies and expanding their application in various industries		
5.5.1. Inventive activity	5.1.1.1. Number of patents, useful models and industrial designs	Strengthening the innovative development of Russian nuclear technologies and expanding their application
	5.1.1.2. Number of applications filed annually to protect the results of intellectual activity, per 100 R&D employees	Strengthening the innovative development of Russian nuclear technologies and expanding their application
5.1.4. Innovation productivity	5.1.4.2. Share of innovative products in revenues	Strengthening the innovative development of Russian nuclear technologies and expanding their application

Indicator	Measure	Report section/chapter
5.2.1. Building R&D infrastructure	5.2.1.1. Investments in R&D infrastructure	Strengthening the innovative development of Russian nuclear technologies and expanding their application
	5.2.1.2. Upgrade and development of the R&D base for nuclear power technologies	Strengthening the innovative development of Russian nuclear technologies and expanding their application
	5.2.1.3. Upgrade and development of the R&D base for radiation technologies	Radiation technologies
	5.2.1.4. Number of bench-scale R&D facilities of nuclear power industry created, modernized and updated	
5.2.2. Involvement in innovation projects	5.2.2.1. Involvement in the implementation of international innovation projects (INPRO, ITER, Generation-IV, FAIR)	Strengthening the innovative development of Russian nuclear technologies and expanding their application
	5.2.2.2. Involvement in the implementation of Russian innovation projects	Strengthening the innovative development of Russian nuclear technologies and expanding their application
5.3.1. VVER upgrade project	5.3.1.1. Description of works performed during the reporting year	Strengthening the innovative development of Russian nuclear technologies and expanding their application
	5.3.1.2. Progress report	Strengthening the innovative development of Russian nuclear technologies and expanding their application
5.3.2. TVS-Kvadrat project	5.3.2.1. Description of works performed during the reporting year	International business
5.3.3. Floating NPP	5.3.3.1. Description of works performed during the reporting year	Engineering activities
5.3.5. Spending to improve current technology platform	5.3.5.1. Total spending to improve the existing production technologies	Strengthening the innovative development of Russian nuclear technologies and expanding their application
5.4.2. Closed nuclear fuel cycle	5.4.2.1. Progress in closing the nuclear fuel cycle	Strengthening the innovative development of Russian nuclear technologies and expanding their application
5.4.3. Fast-neutron reactors	5.4.3.1. Description of works performed during the reporting year	Strengthening the innovative development of Russian nuclear technologies and expanding their application
	5.4.3.2. Progress report	Strengthening the innovative development of Russian nuclear technologies and expanding their application
5.4.4. Spending to create advanced generating technologies	5.4.4.1. Spending to create advanced generating technologies	Strengthening the innovative development of Russian nuclear technologies and expanding their application
5.5.1. Expanding applications of nuclear technologies	5.5.1.1. Shares of non-core markets won by ROSATOM organizations	Radiation technologies
5.5.2. Radiation technologies	5.5.2.2. Description of plans to develop radiation technologies (plans, objectives, effectiveness)	Radiation technologies
5.5.4. Superconductor products	5.5.4.1. Description of plans to develop superconductor products	Strengthening the innovative development of Russian nuclear technologies and expanding their application
	5.5.4.2. Progress with development of superconductor products	Strengthening the innovative development of Russian nuclear technologies and expanding their application

Indicator	Measure	Report section/chapter
5.6.1. Research into new ways of using atomic nucleus energy	5.6.1.1. Financing of research into new ways of using nuclear energy (structure of sources)	Strengthening the innovative development of Russian nuclear technologies and expanding their application
Development of effective mechanisms for management of the nuclear industry		
6.1.1. Projects for improvement of the management system	6.1.1.1. Projects launched during the reporting year to improve management and business systems	Managing organizational development
	6.1.1.2. Optimization of the industry-level system of regulating documents and methodological guidelines of the basis of the uniform code	Managing organizational development
	6.1.1.3. Measures to implement process management methodology and tools at all industry management levels	Managing organizational development
6.1.2. Projects to increase efficiency of operations	6.1.2.1. Results of projects to increase efficiency of operations, including actions under the RPS Program (reduction of blanking workshop areas; shorter manufacturing cycle; fewer defects per component; lower costs to make specific equipment types; increased output of some items on the product lists)	ROSATOM Production System Mining division Fuel division Machine-Building Division Electric power division Engineering activities
	6.1.1.2. Economic effect from implementation of production development and cost-cutting projects at companies (including RPS implementation)	ROSATOM Production System Mining division Fuel division Machine-Building Division Electric power division Engineering activities
6.1.4. Adopting of international management standards	6.1.4.1. List of adopted international management standards	Environmental impact management
6.1.5. Procurement management	6.1.5.1. Tools to make procurement activities more open and transparent	Procurement management
	6.1.5.2. Total savings from open competitive procurement processes (as % and in RUB)	Procurement management
6.1.6. Developing internal communications	6.1.6.1. Projects to develop channels of communication between management and employees	Human resource management
	6.1.6.2. Mechanisms for employees to influence corporate decision making	Human resource management
6.1.7. Applying principles and standards of corporate governance	6.1.7.2. Adherence to the principles of the code of corporate conduct	Corporate governance Some corporate governance principles that are common to international practice (committees under Board of Directors, independent directors, etc.) are not applicable to ROSATOM State Corporation because of its legal organizational form, however, they are implemented by the organizations within the Corporation perimeter
6.1.8. IT applications for management	6.1.8.1. List of IT projects	Intellectual capital management
Ensuring public acceptance of nuclear power development		
7.1.1. Public reporting	7.1.1.1. Observing international standards in non-financial reporting and engagement of stakeholders	Information about the Report
	7.1.1.2. Engagement of stakeholders during preparation of public reports	Engagement of stakeholders in drafting the Report
	7.1.1.3. Observing corporate requirements for public reporting	Information about the Report
7.1.2. Industry information resources	7.1.2.1. Number of information centers	Social and goodwill capital management
	7.1.2.2. Public activities and support for culture (museums, popular science, career consulting, etc.)	Social and goodwill capital management
	7.1.2.3. Industry-level mass media	Social and goodwill capital management

Indicator	Measure	Report section/chapter
Nuclear fleet performance		
8.1.1. Steering ships along the Northern Sea Route and to the freezing ports of Russia	8.1.1.1. Number of en-route assistance operations performed by atomic icebreakers	Atomic icebreaker fleet
8.1.2. Support for scientific expeditions and research activities	8.1.2.1. Support for scientific expeditions and research activities to study marine meteorology and mineral deposits of the Arctic continental shelf (off the northern coast of Russia)	Atomic icebreaker fleet
8.1.4. Ensuring nuclear and radiation safety	8.1.4.1. Implementation of international projects to improve systems of physical protection for nuclear ships and onshore facilities, and raise the level of nuclear and radiation safety in the handling of radioactive waste and spent nuclear fuel	Atomic icebreaker fleet
	8.1.4.2. Implementation of Russian projects to improve systems of physical protection for nuclear ships and onshore facilities, and increase the level of nuclear and radiation safety in the handling of radioactive waste and spent nuclear fuel	Atomic icebreaker fleet
Exercising authority and functions delegated by government		
9.1.1. Distribution of federal funds allocated for federal target programs	9.1.1.1. Total federal funds allocated for federal target programs	Implementation of national priorities through ROSATOM's role as an agent of government policy.
	9.1.1.2. Progress with federal target programs during the reporting period	Implementation of national priorities through ROSATOM's role as an agent of government policy.
9.1.2. Investments from the state budget	9.1.2.1. Total amount of investments from the state budget	Implementation of national priorities through ROSATOM's role as an agent of government policy.
9.2.1. Legislation and regulation	9.2.1.2. Number of draft laws and other regulations written with the assistance of ROSATOM	Implementation of national priorities through ROSATOM's role as an agent of government policy.
	9.2.1.3. Number of new regulations and laws enacted	Implementation of national priorities through ROSATOM's role as an agent of government policy.
9.3.1. Maintenance and control of government assets	9.3.1.1. Number of Government ownership titles registered for items of real estate	Implementation of national priorities through ROSATOM's role as an agent of government policy.
	9.3.1.2. Share of assets where the RF ownership rights are yet to be registered	Implementation of national priorities through ROSATOM's role as an agent of government policy.
9.3.2. Exercising government control over radiation levels, handling of nuclear and radioactive materials, and radioactive waste	9.3.2.1. Standard control measures	Ensuring nuclear and radiation safety
	9.3.2.2. Number of major violations identified by control measures	Ensuring nuclear and radiation safety
	9.3.2.3. Decisions by management of ROSATOM (and other industry organizations) based on the results of control measures	Implementation of national priorities through ROSATOM's role as an agent of government policy.
	9.3.3.2. Number of inspections to ensure proper accounting and control of nuclear materials	Ensuring nuclear and radiation safety

Indicator	Measure	Report section/chapter
Development of human resource capital		
10.1.1. Qualified workforce	10.1.1.1. Number of students on work placements	Human resource management
	10.1.1.5. Number of employees holding doctorates and doctoral candidacies	Corporate capitals
	10.1.1.7. Number of university and college graduates hired, including those who have completed specialized training programs	Human resource management
	10.1.1.8. Number of university and college students undergoing specialized training programs	Human resource management
10.1.3. Creating and deploying skill pools	10.1.3.1. Number of employees in the skill pool	Human resource management
	10.1.3.2. Number and share of employees from the skill pool appointed to vacant positions	Human resource management
SUSTAINABLE DEVELOPMENT PERFORMANCE		
Environmental impact		
12.1.4. Initiatives to reduce hazardous pollutant releases in the atmospheric air; reduction achieved	12.1.4.1. Information on initiatives concerning reduction of hazardous pollutants releases in the atmospheric air; reduction achieved	Environmental impact management
	12.1.4.2. Quantitative data on reduction of hazardous pollutants emissions into the atmospheric air	Environmental impact management
12.1.5. Initiatives to reduce hazardous pollutant discharges in water bodies; reduction achieved	12.1.5.1. Information on initiatives concerning reduction of hazardous pollutants discharges in water bodies	Environmental impact management
	12.1.5.2. Quantitative data on reduction of hazardous pollutants discharges in water bodies	Environmental impact management
12.1.11. Implementation of environmental management systems	12.1.11.1. Number of companies holding ISO 14001 compliance certificates	Environmental impact management
	12.1.11.3. Results of audits	Environmental impact management
12.2.5. Water consumption for own needs	12.2.5.1. Water consumption for own needs	Environmental impact management
12.3.15. Payments for emissions of air pollutants from fixed and mobile sources, discharge of pollutants to surface and ground water bodies, storage of production and consumption waste	12.3.15.1. Payments for emissions of air pollutants from fixed and mobile sources, discharge of pollutants to surface and ground water bodies, disposal of production and consumption waste	Environmental impact management
12.5.1. Radionuclide emissions to the atmosphere	12.5.1.1. Total atmospheric emissions of radionuclides	Environmental impact management
	12.5.1.2. Additional radiation exposure of the general public due to the operation of nuclear industry facilities	Environmental impact management
12.5.2. Radionuclide discharge in wastewater	12.5.2.1. Volume of wastewater containing radionuclides	Environmental impact management
	12.5.2.2. Total activity of radionuclide-containing wastewater	Environmental impact management
12.5.3. Radionuclide contamination of territories	12.5.3.1. Area of territories contaminated by radionuclides	Environmental impact management
Social and labor relations		
13.1.4. Share of employees under 35	13.1.4.1. Share of employees under 35	Human resource management
13.1.5. Average age of employees (by categories)	13.1.5.1. Average age of employees (by category)	Human resource management
13.1.8. Ratio of average paycheck to labor market average	13.1.8.1. Ratio of average paycheck to labor market average	Human resource management

Indicator	Measure	Report section/chapter
13.3.4. Non-state pension plans	13.3.4.1. Number of employees with non-state pension plans	Human resource management
	13.3.4.2. Total spending on non-state pension plans	Human resource management
13.3.5. Total spending on personnel	13.3.5.1. Total spending on personnel	Human resource management
13.3.6. Spending on social programs for employees	13.3.6.1. Total spending on social programs for employees	Human resource management
	13.3.6.2. Cost of corporate housing policy implementation	Human resource management
	13.3.6.3. Cost of support for veterans	Human resource management
	13.3.6.4. Annual social payments per employee	Human resource management
	13.3.6.5. Cost of voluntary health insurance	Human resource management
13.4.5. Controlling exposure of personnel to radiation	13.4.5.1. Annual average exposure of personnel to radiation	Ensuring nuclear and radiation safety
	13.4.5.2. Number of cases of personnel exposure in excess of the standard dose limits	Ensuring nuclear and radiation safety
	13.4.5.3. Share of total employees who are under individual radiation monitoring within the ARMIR system	Ensuring nuclear and radiation safety
	13.4.5.4. Share of employees exposed to an acceptable occupational hazard	Ensuring nuclear and radiation safety
	13.4.5.5. Share of employees with increased individual lifetime risk	Ensuring nuclear and radiation safety
Impact on the social and economic situation in the host regions		
14.2.1. Generation of closed administrative territories development programs	14.2.1.1. Generation of programs for development of closed administrative territories	Social and economic capital management
14.3.1. Socially significant joint projects with non-profit and non-government organizations	14.3.1.1. Socially significant joint projects with non-profit and non-government organizations	
14.4.1. Charity projects and related spending	14.4.1.1. Charity projects and related spending	Social and economic capital management

APPENDIX 3

STATEMENT BY THE AUDIT COMMITTEE ON FINANCIAL AND OPERATING PERFORMANCE OF THE STATE ATOMIC ENERGY CORPORATION ROSATOM AND ITS ORGANIZATIONS IN 2012

Moscow

April 26, 2013

The Audit Committee, consisting of: Chairman of the Audit Committee — R. Ye. Artyukhin — Head of the Federal Treasury of the Russian Federation, V. K. Utkin — Head of the Department of Defense Industry of the Government of the Russian Federation, L. F. Buzina — Deputy Director of the Department for Budget Policy of the State Military and Law Enforcement Services and the Governmental Defense Order of the Ministry of Finance of the Russian Federation, V. S. Katrenko — Auditor of the Accounts Chamber of the Russian Federation, A. V. Rozhnov — Deputy Head of the 12 Main Department of the Ministry of Defense of the Russian Federation — has examined the financial and operating performance in order to validate the information contained in the Annual Report filed by State Atomic Energy Corporation ROSATOM [Corporation] for the period from January 1, 2012 to December 31, 2012.

The examination of performance of the Corporation has been carried out in accordance with Article 31 of Federal Law No. 317-FZ, of 01.12.2007, "On State Atomic Energy Corporation ROSATOM" and the Regulation on the ROSATOM Audit Committee, reconciled by the Supervisory Council of ROSATOM, Minutes No. 1, of December 26, 2007 [as amended in the Minutes of May 27, 2010].

The Audit Committee after examining the financial and business performance of the Corporation in 2012, has established the following:

- the corporation's obligations in the capacity as the key-spending unit of the Federal budget are fully performed;
- the revenue target of 132,946 mln RUB was exceeded by 0,2%. Total income is 133,249.5 mln RUB [income increase compared to the target is 303 mln RUB].
- target costs (138,213 mln RUB) is performed with costs decrease by 1,6%. Costs comprised 135,992.01 mln RUB [costs decrease relative to the target is 2,221 mln RUB].
- target budget deficit of the Corporation is covered by expenditures decrease – 2,221 mln RUB, income increase – 303 mln RUB and cash balance – 2,768 mln RUB.

The Consolidated Financial Statements of the Corporation (Financial Statements) are prepared in alignment with International Financial Reporting Standards (IFRS). During the transition period, the Corporation applies IFRS requirements "First Time Application of International Financial Reporting Standards".

Assets of the Corporation and its Subsidiaries and Federal State Unitary Enterprises (the Group) and its organizations increased by 5,2% in 2012 in comparison to 2011.

Current assets in 2012 integrally decreased by 2.3%.

Liabilities of the Corporation and its organizations increased in 2012 by 3,9%; long-term liabilities increased by 4,6%, at the same time liabilities for loans and

credits decreased by 13,8%. Short-term liabilities increased by 2,6%. Integrated proceeds in 2012 increased by 2% in comparison to 2011.

Costs increased by 11%. Sales and administration costs increased in 2012 by 8%.

In broad terms, continuing net assets growth marked the Group's Financial Position in 2012.

The audit results have not revealed any discrepancies in the Financial Statements under review.

As per the Balance Sheet (form 070002) in 2012, the Corporation' revenue before tax (line 2300) was 10,514,554 thous. RUB [in 2011 — 14,906,088 thous. RUB].

No.	Indicator	2012	2011	Difference	As percentage of 2011
1	Sales revenue	8,776	6,289	2,487	39.55
2	Interest receivable	760,708	273,948	486,760	177.68
3	Interest payable	—	44,903	-44,903	-100.00
4	Participation capital income	9,054,794	22,033,330	-12,978,536	-58.90
5	Other income	739,804	3,277,357	-2,537,553	-77.43
	including assets rent revenue	96,729	99,679	-2,950	-2.96
6	Other expenses	49,528	10,639,933	-10,590,405	-99.53
	Profit/loss before tax	10,514,554	14,906,088	-4,391,534	-29.46

After reviewing the Balance Sheet (form 0710001), Financial Statement (form 0710002), Report on proper use of funds received (form 0710006), accounting statements of the Corporation for 2012 (Table 10) and explanatory note, the Audit Committee has established the following:

- Decrease of profit by 29,5%, assets value by 5,3%, inventory by 3,7% in comparison to 2011.
- Increase of administrative costs by 16,9%, including payroll expenses (together with accrued payroll) by 15,8%, business travel expenses by 10%, maintenance costs of offices, vehicle park and other property without repair costs) by 52,5%, other costs by 19,6%.

Assets value – Balance –
901,848,892 thous. RUB.

Net assets value –
989,811,983 thous. RUB.

As of December 31, 2012, the ROSATOM State Corporation structure consisted of:

1. 37 Federal unitary state enterprises, over which ROSATOM State Corporation exercises owner's rights on behalf of the Russian Government;
2. 6 private organizations;
3. 1 non-commercial educational institution;
4. 353 entities affiliated within the group with ROSATOM State Corporation as of 31.12.2012 (including 25 Joint Stock Companies, the shares of which are owned by ROSATOM State Corporation, 16 Joint Stock Companies, over which ROSATOM State Corporation exercises shareholder rights on behalf of the Russian Government);
5. 2 Closed Joint Stock Companies, the shares of which in some part are owned by ROSATOM State Corporation.

Total number: 399 legal entities.

Through its activities to examine financial and business activities and validate the 2012 Annual Report filed by the Corporation; based on a randomly selected sample of documents, the Audit Committee has established that:

- the Corporation's accounting statements reliably represent the Corporation's financial situation and its financial and operating activities during the reporting period in all major aspects;
- consolidated financial statements of the Corporation and its organizations

reliably represent all major aspects of the financial situation of the Corporation and its organizations, and the results of their financial and business operations during the reporting period;

- after reviewing procurement activity and the Corporation's Procurement Policy, their compliance with the requirements of Federal Law No. 223-FZ, dated July 18, 2011, "On Procurement of Goods, Works and Services by Certain Legal Entities", it was revealed that the Unified industry standard of procurement meets all the legal requirements.

The Audit Committee has concluded that:

- no facts have been identified to suggest that financial and business operations of the Corporation and its organizations violate the procedures for business accounting and financial reporting established by Russian federal legislation;
- based on internal control information, no facts have been identified to suggest that budget funds and assets or other resources of the Corporation and its organizations have been inefficiently used, or that the Corporation's special reserve funds have been used for purposes other than declared. Alongside with that, up to now, special reserve funds No.1 "Special reserve fund for expenses in ensuring nuclear, radiation, technological and fire safety in NPP operations" and No.5 "Special reserve fund for expenses in ensuring effective burial of radioactive wastes" have not been established. The ROSATOM State Corporation Governing Board has not prepared a feasibility study (for the Supervisory Council approval) about amount and target financing (project list);
- no facts have been identified to suggest that any of the business and financial decisions made by the Corporation's Supervisory Council, CEO and Administration, are non-compliant with the Federal Law No. 317 dated December 01, 2007, "On State Atomic Energy Corporation ROSATOM" and other applicable Russian federal law;
- the Audit Committee's recommendations issued in its statement of April 13, 2012, have been taken into account.

The Corporation has an overall system of effective internal control.

The Audit Committee hereby confirms that the information disclosed in the 2012 Annual Report filed by ROSATOM State Corporation is reliable and true.

The following recommendations are issued to the Supervisory Council and the Administration of ROSATOM State Corporation:

1. Undertake all the required efforts to ensure compliance with the requirements of Article 20 of the Federal Law No. 317-FZ, of 01.12.2007, "On State Atomic Energy Corporation ROSATOM".
2. Enhance efficiency of internal control (audit) within the Corporation, namely:
 - improve the decision making procedure of investment of temporarily available cash of ROSATOM State Corporation, approved by the Supervisory Council on October 19, 2012, in conformity with the provisions of Federal Law No. 1080, of December 21, 2011, and determine the unit which exercises control over the investment of temporarily available cash of ROSATOM State Corporation and file information to the RF Ministry of Finance;
 - include into the audit plan of 2013 the review of allocation and use of special reserve funds of the Corporation;
 - include into the audit plan of 2013 the review of the efficiency work of the Property Management Office;
 - include into the audit plan of 2013 the review of the efficiency work of the Department of Legal issues and Corporate Governance of the Corporation in terms of contracting work and interest protection of the Corporation in the procurement procedure;
 - ensure compliance with the requirement of Unified Industry Procedures of review of proper and efficient use of real estate property in compliance with the Executive Order of the Corporation No. 1/392-P of 05.05.2012.
3. In order to enhance reliability and transparency of the Corporation Financial Plan for the reporting period, envisage the opportunity of disclosure of the available cash balance of the Corporation, identifying its sources and in case of cash flow deficit to cover the budget deficit of the Corporation, provide deficit financing sources.
4. Ensure procurement contract procedure in strict compliance with the conditions of public tenders, enhancing protection of the Corporation's interests in procurement procedures.
5. Take adequate measures to improve quality of filing and updating information about standard pro-forma Government contracts according to the requirements of the Federal Law No. 94-FZ, of 25.07.2005, "On Placing Orders for Supply of Goods, Works and Services for State and Municipal Requirements".

**Chairman
of the Audit
Committee**

R. Ye. Artyukhin

**Members
of the Audit
Committee**

V. K. Utkin

L. F. Buzina

V. S. Katrenko

A. V. Rozhnov

APPENDIX 4

OPINION OF INTERNAL AUDITS TO EXAMINE THE BUSINESS PROCESS GROUP 'MANAGEMENT OF THE SYSTEM OF PUBLIC REPORTING BY ROSATOM STATE CORPORATION AND ITS ORGANIZATIONS' AS REGARDS COMPLIANCE OF THE PUBLIC REPORTING PROCESS WITH THE CORPORATION'S PUBLIC REPORTING POLICY

This internal audit of the business process – Public Reporting System Management by ROSATOM State Corporation and its subsidiaries – was conducted in compliance with Article 32 Federal Law No. 317-FZ of 01.12.2007 on the State Corporation for Atomic Energy ROSATOM, according to the Master plan of monitoring arrangements of Internal Control and Audit Departments of ROSATOM State Corporation for the half year period of 2013 as well as taking into account the Corporation's Public Reporting Policy Requirements, Public Reporting Standard, Procedure for Annual Report preparation, adopted by the Public Reporting Committee (Committee Meeting Minutes of 23.12.2011 No. 7) and reconciled by ROSATOM State Corporation's Order "About Preparing Public Reporting of ROSATOM State Corporation and its Subsidiaries" of 13.05.2011 No. 1/403-P, major provisions of the GRI Guidelines on sustainable development report (version G 3.1), the AA1000 series of international standards, recommendations of the Russian Union of Industrialists and Entrepreneurs (RSPP) for management practice and corporate non-financial reporting and proceedings of International Integrated Reporting Committee.

The head of the group responsible for preparing Public Annual Reports is M.V. Galushkina – Project Manager of the "Development of Public Reporting of ROSATOM State Corporation and its Subsidiaries".

Audit assessment:

- evaluated the efficiency of the internal control system for the public reporting process (including analysis of regulation and formalization of key processes related to generation of public reports, and efficiency analysis of key control procedures and patterns used to ensure reliable generation of public reports);
- evaluated conformability of the procedure used to generate public reports with applicable Laws and corporate rules and regulations applicable to the public reporting process;
- developed recommendations for improving the system of internal control in terms of public reporting preparation.

On the whole, the business process — Public Reporting System Management by ROSATOM State Corporation and its subsidiaries — for 2012 was performed in compliance with the applicable Laws and corporate regulatory documents mandatory for public reporting.

Head of the Audit Group



Vlasova E. V.

Audit Group Officer



Savushkina I. S.

APPENDIX 5. SUMMARY IFRS CONSOLIDATED FINANCIAL STATEMENTS OF OJSC ATOMENERGOPROM FOR 2013 AND OPINION OF INDEPENDENT AUDITOR, ZAO KPMG



OJSC ATOMENERGOPROM SUMMARY CONSOLIDATED FINANCIAL STATEMENTS FILED ON THE BASIS OF THE CONSOLIDATED FINANCIAL STATEMENT PREPARED IN COMPLIANCE WITH INTERNATIONAL ACCOUNTING STANDARDS (IFRS) FOR THE YEAR ENDED DECEMBER 31, 2012

Auditor's report

To the Shareholders and Board of Directors of OJSC Atomenergoprom

The attached summary consolidated financial reports, which consist of the summary consolidated statement of financial position as of December 31, 2012, summary consolidated income statement, consolidated profit and loss statement, summary consolidated statement of changes in equity and summary consolidated cash flow statement for 2012, together with the respective notes were prepared on the basis of consolidated financial reports filed by OJSC Atomenergoprom (the "Company") and its subsidiaries (the "Group") for the year that ended December 31, 2012. In our Auditor's Opinion of April 25, 2013, we expressed our unreserved positive view of the Group's consolidated financial reports.

Summary consolidated financial reporting does not contain any disclosures required under the International Accounting Standards. Therefore, this set of reporting is not a substitute for the Group's consolidated financial reports that we previously audited.

Responsibility of Company management for the summary consolidated financial statements

The Company's management remains responsible for preparation of the summary consolidated financial statements in accordance with the criteria disclosed in Note 1.

Responsibility of the Auditor

Our responsibility is to express an opinion on the summary consolidated financial statements based on auditing procedures carried out as required under International Standard on Auditing ISA 810 "Engagements to Report on Summary Financial Statements".

Entity under audit: OJSC Atomic Energy Power Corporation (OJSC Atomenergoprom).

Registered by Interregional Inspectorate of the RF Ministry of Taxes and Levies No. 46 in Moscow. Certificate 77 No. 008571073 of July 19, 2007.

Major registration record number in the Unified State Register of legal entities is 1077758081664 of July 19, 2007.

Location: 119017, Moscow, Bolshaya Ordynka, 24

Independent auditor is ZAO KPMG, a company registered under the Laws of the Russian Federation, part of the KPMG Europe LLP group, and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International", incorporated under the Laws of Switzerland.

ZAO KPMG is registered by the Moscow registration Chamber, Registration Certificate No. 011.585 of May 25, 1992 has been filed into the Unified State Register of Legal Entities, held by the Interregional Inspectorate of the RF Ministry of Taxes and Levies No. 39 in Moscow under the entry No. 1022700125628 on August 13, 2002, Certificate 77 No. 005721432.

ZAO KPMG is a member of the non-profit partnership Audit Chamber of Russia. Major registration record number in the Register of Auditors and Audit Organizations — 10301000804.

Opinion

It is our opinion that the summary consolidated financial statements prepared on the basis of audited consolidated financial statements filed by the Group for the year ended December 31, 2011, correspond in all substantial respects to the audited consolidated financial statements in accordance with the criteria described in Note 1.

Director A. V. Shvetsov

[Power of Attorney of November 23, 2012 No. 78/11] ZAO KPMG

April 25, 2013, Moscow, Russian Federation



SUMMARY CONSOLIDATED STATEMENT OF FINANCIAL POSITION OF OJSC ATOMENERGOPROM AS OF DECEMBER 31, 2012

(mln RUB)

	December 31, 2012	December 31, 2011 (recalculated)
ASSETS		
Non-current assets		
Goodwill	29,258	42,291
Fixed assets	1,191,872	1,056,252
Intangible assets	42,389	33,374
Investments, calculated by equity share	57,303	64,223
Investments available for sale	33,631	59,355
Sales and other receivables	42,781	25,733
Deferred tax assets	51,520	43,961
Other non-current assets	22,200	18,850
Total non-current assets	1,470,954	1,344,039
Current assets	-10,590,405	-99.53
Inventory	152,722	135,357
Profit tax receivables	2,871	1,419
Other tax receivables (without profit tax receivables)	116	194
Bank deposits	2,150	11,720
Sales receivables	175,727	171,497
Cash and equivalents	80,336	129,180
Other current assets	4,709	3,678
Total current assets	418,631	453,045
Total assets	1,889,585	1,797,084

OJSC ATOMENERGOPROM

CONSOLIDATED STATEMENT OF FINANCIAL POSITION OF OJSC ATOMENERGOPROM AS OF DECEMBER 31, 2012

(mln RUB)

	December 31, 2012	December 31, 2011 (recalculated)
EQUITY & LIABILITIES		
Equity		
Share capital	796,913	734,743
Additional paid-in capital	361	361
Reserves as part of equity	(4,320)	13,038
Retained profits	393,940	382,393
Total equity of Company shareholders	1,186,894	1,130,535
Minorities	91,392	95,499
Total equity	1,278,286	1,226,034
Long-term liabilities		
Loans and credits	126,422	137,141
Trading and other payables	43,138	16,412
Target financing	8,032	6,143
Payroll liabilities	27,138	25,866
Reserves	119,333	88,549
Deferred tax liabilities	66,813	68,151
Other long-term liabilities	862	2,619
Total long-term liabilities	391,738	344,881
Short-term liabilities		
Loans and credits	77,824	72,908
Profit tax payables	3,759	4,836
Other tax payables	18,227	26,308
Trade and other payables	113,493	116,973
Other short-term liabilities	6,258	5,144
Total short-term liabilities	219,561	226,169
Total liabilities	611,299	571,050
Total equity and liabilities	1,889,585	1,797,084

Director

Chief accountant

April 25, 2013



K. B. Komarov

V. A. Andriyenko

**SUMMARY CONSOLIDATED STATEMENT OF CHANGES IN EQUITY OF OJSC ATOMENERGOPROM
FOR THE YEAR ENDED DECEMBER 31, 2012**

(mln RUB)

	Attributable to Company shareholders							Minority share	Total equity
	Shareholder capital	Additional paid-in capital	Provisions for re-valuation of investments available for sale	Provisions for exchange rate fluctuations	Other provisions	Retained profit	Total		
Balance as of January 01, 2011 (recalculated)	665,665	361	12,417	(733)	(1,407)	354,192	1,030,495	45,823	1,076,318
Total comprehensive income for the year									
Profit for the year	—	—	—	—	—	59,715	59,715	1,231	60,946
Other comprehensive income									
Exchange rate differences from conversion of indicators for foreign business units	—	—	—	4,209	—	—	4,209	2,458	6,667
Revaluation of investments available for sale	—	—	(3,438)	—	—	—	(3,438)	—	(3,438)
Actuary profit in pension plans with fixed payment	—	—	—	—	1,627	—	1,627	—	1,627
Profit tax on other comprehensive income	—	—	688	—	(325)	—	363	—	363
Total other comprehensive income	—	—	(2,750)	4,209	1302	—	2,761	2,458	5,219
Total comprehensive income for the year	—	—	(2,750)	4,209	1302	59,715	62,476	3,689	66,165

OJSC ATOMENERGOPROM

SUMMARY CONSOLIDATED STATEMENT OF CHANGES IN EQUITY OF OJSC ATOMENERGOPROM
FOR THE YEAR ENDED DECEMBER 31, 2012

(mln RUB)

	Attributable to Company shareholders						Total	Minority share	Total equity
	Shareholder capital	Additional paid-in capital	Provisions for revaluation of investments available for sale	Provisions for exchange rate differences	Other provisions	Retained profit			
Contributions by and payments to owners									
Dividends	—	—	—	—	—	(22,015)	(22,015)	(129)	(22,144)
Share issuance	69,078	—	—	—	—	—	69,078	—	69,078
Total contributions by and payments to owners	69,078					(22,015)	47,063	(129)	46,934
Acquisition of shares in subsidiaries	—	—	—	—	—	—	—	183	183
Changes in minorities' interest in subsidiary companies	—	—	—	—	—	(9,499)	(9,499)	39,838	30,339
Capital gain from share options plan	—	—	—	—	—	—	—	3,937	3,937
Obligations convertible to capital gain	—	—	—	—	—	—	—	2,158	2,158
Total transactions with owners	69,078	—	—	—	—	(31,514)	37,564	45,987	83,551
Balance as of December 31, 2011	734,743	361	9,667	3,476	(105)	382,393	1,130,535	95,499	1,226,034

**SUMMARY CONSOLIDATED STATEMENT OF CHANGES IN EQUITY OF OJSC ATOMENERGOPROM
FOR THE YEAR ENDED DECEMBER 31, 2012**

(mln RUB)

	Attributable to Company shareholders								
	Shareholder capital	Additional paid-in capital	Provisions for re-valuation of investments available for sale	Provisions for exchange rate fluctuations	Other provisions	Retained profit	Total	Minority share	Total equity
Balance as of January 01, 2012 (recalculated)	734,743	361	9,667	3,476	(105)	382,393	1,130,535	95,499	1,226,034
Total comprehensive income for the year									
Profit for the year	—	—	—	—	—	26,627	26,627	(102)	26,525
Other comprehensive income									
Exchange rate fluctuations from conversion of indicators from overseas business units	—	—	—	(7,280)	—	—	(7,280)	(2,750)	(10,030)
Revaluation of investments available for sale	—	—	(6,621)	—	—	—	(6,621)	—	(6,621)
Actuary profit in pension plans with fixed payment	—	—	—	—	(1,432)	—	(1,432)	—	(1,432)
Net change in fair value of financial assets available for sale	—	—	(4,545)	—	—	—	(4,545)	—	(4,545)
Profit tax on other comprehensive income	—	—	2,233	—	287	—	2,520	—	2,520
Total other comprehensive income	—	—	(8,933)	(7,280)	(1,145)	—	(17,358)	(2,750)	(20,108)
Total comprehensive income for the year	—	—	(8,933)	(7,280)	(1,145)	26,627	9,269	(2,852)	6,417

OJSC ATOMENERGOPROM

SUMMARY CONSOLIDATED STATEMENT OF CHANGES IN EQUITY OF OJSC ATOMENERGOPROM
FOR THE YEAR ENDED DECEMBER 31, 2012

(mln RUB)

	Attributable to Company shareholders						Total	Minority share	Total equity
	Shareholder capital	Additional paid-in capital	Provisions for re-valuation of investments available for sale	Provisions for exchange rate fluctuations	Other provisions	Retained profit			
Contributions by and payments to owners									
Dividends	—	—	—	—	—	(9,013)	(9,013)	(46)	(9,059)
Share issuance	62,170	—	—	—	—	—	62,170	—	62,170
Capital gain from transactions under framework supervision	—	—	—	—	—	(8,373)	(8,373)	—	(8,373)
Total contributions by and payments to owners	62,170	—	—	—	—	(17,386)	44,784	(46)	44,738
Changes in minorities shares in subsidiary companies	—	—	—	—	—	2,306	2,306	(1,209)	1,097
Total transactions with owners	62,170	—	—	—	—	(15,080)	47,090	(1,255)	45,835
Balance as of December 31, 2012	796,913	361	734	(3,804)	(1,250)	393,940	1,186,894	91,392	1,278,286

Director
Chief accountant
April 25, 2013



K. B. Komarov
V. A. Andriyenko

**SUMMARY CONSOLIDATED CASH FLOW STATEMENT OF OJSC ATOMENERGOPROM
FOR THE YEAR ENDED DECEMBER 31, 2012**

(mln RUB)

	2012	2011
OPERATIONS		
Profit before tax	40,054	80,666
<i>Adjustments:</i>		
Depreciation	66,553	66,776
Loss from depreciation of fixed assets and goodwill	26,297	6,868
Loss on disposal of fixed, intangible and other assets	2,975	15,352
Profit share in companies accountable by equity (less profit tax)	(3,592)	(2,696)
Net profit expense/income	(2,354)	8,239
Change in accrued reserves	12,694	(2,340)
Other	524	767
Cash flow from operations before changes in working capital	143,151	173,632
Change in inventory	(18,001)	(33,189)
Change in trade proceeds and other receivables	(11,434)	(4,927)
Change in other tax receivables	78	348
Change in trade and other payables	(1,231)	27,519
Change in other tax payables	(8,081)	(1,676)
Cash flow from operations before profit tax and interest	104,482	161,707
Profit tax paid	(23,155)	(22,141)
Interest paid	(14,439)	(5,417)
Net cash flow from operations	66,888	134,149
INVESTMENTS		
Interest received	9,242	6,271
Acquisition of fixed assets	(207,929)	(205,237)
Purchase of intangible assets	(13,394)	(5,398)
Proceeds from investments' purchase and due deposits	-	(54,807)
Proceeds from sale of investments	41,756	430
Proceeds from purchase of subsidiaries, less their available cash	-	(28,553)
Loans to other entities	(70,880)	(42,929)
Proceeds from loans to other entities	61,034	38,040
Proceeds from disposal of fixed assets and intangibles assets	16,430	4,336
Proceeds from target financing	2,340	980
Net cash flow used for investments	(161,401)	(286,867)
FINANCING		
Proceeds from issued shares	58,207	98,075
Loans taken	212,083	312,017
Loans repaid	(215,472)	(198,902)
Dividends paid	(9,013)	(22,087)
Net cash flow from /used in financing	45,805	189,103
Net increase/decrease of cash and equivalents	(48,708)	36,385
Cash and equivalents at the year start	129,040	92,655
Cash and equivalents at the year end	80,332	129,040

Director

Chief accountant

April 25, 2013



K. B. Komarov

. A. Andriyenko

OJSC ATOMENERGOPROM**NOTE TO THE SUMMARY CONSOLIDATED FINANCIAL REPORTS FILED FOR THE YEAR ENDED DECEMBER 31, 2012****Criteria for Preparation of Summary Consolidated Financial Statements**

These summary consolidated financial statements, which comprise Summary Consolidated Financial Statements as of December 31, 2012, Summary Consolidated Income Statement, Summary Consolidated Profit and Loss Statement, Summary Consolidated Statement of Changes in Equity, and Summary Consolidated Cash Flow Statement for the years 2012 and a respective note, were prepared by extracting the corresponding information, without any changes whatsoever, from the consolidated financial statements filed by OJSC Atomenergoprom and its subsidiaries in accordance with International Accounting Reporting Standards (IARS) for the year ended December 31, 2012 (hereinafter referred to as Consolidated Financial Statements). Notes to the Consolidated Financial Statements were not included in the present summary Consolidated Financial Statements.

Accordingly, these summary Consolidated Financial Statements correspond to the Consolidated Financial Statements posted online at the OJSC Atomenergoprom official website.

APPENDIX 6.

KPMG LIMITED ASSURANCE REPORT ON ROSATOM NON-FINANCIAL REPORTING 2012



ZAO KPMG
10 Presnenskaya Naberezhnaya
Moscow, Russia 123317

Telephone: +7 (495) 937 4477
Fax: +7 (495) 937 4400/99
Internet: www.kpmg.ru

INTRODUCTION

We were engaged by the management of ROSATOM to provide limited assurance on select aspects of the sustainability specific non-financial information integrated in the Annual Report of ROSATOM and its subsidiaries ("ROSATOM") for the year ended 31 December 2012 ("the Report").

MANAGEMENT'S RESPONSIBILITY FOR THE REPORT AND THE CRITERIA APPLIED

Management is responsible for the preparation and presentation of the Report in accordance with the G3.1 Sustainability Reporting Guidelines of the Global Reporting Initiative, as described in the "Report Overview" section of the Report, and the information and assertions contained within it; for determining ROSATOM's objectives in respect of sustainable development performance and reporting, including the identification of its stakeholders and issues that are material to its stakeholders; and for establishing and maintaining appropriate performance management and internal control systems from which the reported sustainability information is derived.

SCOPE AND ASSURANCE STANDARD

Our responsibility is to carry out a limited assurance engagement and to express a conclusion based on the work performed. We conducted our engagement in accordance with the International Standard on Assurance Engagements ("ISAE") 3000 *Assurance Engagements other than Audits or Reviews of Historical Financial Information* issued by the International Auditing and Assurance Standards Board. That Standard requires that we comply with applicable ethical requirements, including independence requirements, and that we plan and perform the engagement to obtain limited assurance about whether (1) the selected sustainability specific non-financial information integrated in the Annual Report of Rosatom for the year ended 31 December 2012, marked with the symbol [•]; (2) ROSATOM's self-declared GRI A+ application level; and (3) the description of ROSATOM's stakeholders engagement adherence to AA1000APS(2008) principles of inclusivity, materiality and responsiveness, are free from material misstatement.

ZAO KPMG**Independent Limited Assurance Report
to the Management of ROSATOM
11 November 2013****Work undertaken**

A limited assurance engagement on sustainability information consists of making inquiries, primarily of persons responsible for the preparation of information presented in the Report, and applying analytical and other evidence gathering procedures, as appropriate. These procedures included:

- Inquiries of management to gain an understanding of ROSATOM's processes for determining the material issues for ROSATOM's key stakeholder groups.
- Inquiries of management and relevant staff at corporate and selected subsidiary and operational site level to gain an understanding of ROSATOM's processes for stakeholder engagement.
- Interviews with management and relevant staff at corporate and selected subsidiary and operational site level concerning sustainability strategy and policies for material issues, and the implementation of these across the business.
- Interviews with relevant staff at corporate and selected subsidiary and operational site level responsible for providing the information in the Report.
- Visit of the operating site in Nizhny Novgorod, Russian Federation (OJSC "Afrikantov OKB Mechanical Engineering") and head office of fuel division in Moscow, Russian Federation (OJSC "TVEL"), selected on the basis of a risk analysis including the consideration of both quantitative and qualitative criteria with regard to the priority topics of the Report.
- Comparing the information presented in the Report to the corresponding information in the relevant underlying sources to determine whether all relevant information contained in such underlying sources has been included in the Report.

- Checking the content of the Report to ensure consistency with the GRI application level requirements of A+.
- Reading the information presented in the Report to determine whether it is in line with our overall knowledge of, and experience with, the sustainability performance of ROSATOM.

The extent of evidence gathering procedures performed in a limited assurance engagement is substantially less than that for a reasonable assurance engagement, and therefore a lower level of assurance is provided.

Conclusions

Based on the procedures performed, as described above, nothing has come to our attention that causes us to believe that the selected sustainability specific non-financial information integrated in the Annual Report, marked with the symbol [•], and ROSATOM's self-declaration of GRI application level A+ indicated in the "Report Overview" section of the Annual Report, are not presented fairly, in all material respects, in accordance with the G3.1 Sustainability Reporting Guidelines of the Global Reporting Initiative.

Based on the procedures performed, as described above, nothing has come to our attention to indicate that the description of Rosatom's adherence to AA1000APS(2008) principles of inclusivity, materiality and responsiveness, is not, in all material respects, fairly stated in accordance with the Global Reporting Initiative reporting principles for defining report content, quality and boundary setting.

ZAO KPMG

**ZAO KPMG
Moscow, 11 November 2013**

APPENDIX 7. LIST OF KEY ORGANIZATIONS OF ROSATOM

	environmentally significant organizations
	organizations within the perimeter of consolidated financial reports for IFRS OJSC Atomenergoprom
	organizations that participate in the ROSATOM Production System
	organizations within the perimeter of consolidated financial reports of ROSATOM State Corporation
	key organizations (for the purposes of public reporting)

NUCLEAR WEAPONS COMPLEX	
1.	FNCP Procenko Manufacturing Association "Start", FSUE 
2.	N.L. Dukhov All-Russian Research Institute of Automatics, FSUE 
3.	Elektrokhimpribor Combine, FSUE 
4.	Instrumentation plant, FSUE 
5.	Mayak Production Association, FSUE 
6.	Academician Zababakhin All-Russian Research Institute of Industrial Physics, Russian Federal Nuclear Center, FSUE 
7.	All-Russian Research Institute for Experimental Physics, Russian Federal Nuclear Center, FSUE (RFNC VNIIEF) 
8.	Urals Electromechanical Plant, FSUE 
9.	Sever Production Complex, FSUE 
10.	A.P. Aleksandrov Research and Technology Institute, FSUE 
11.	Yu.Ye. Sedakov Research Institute of Measuring Systems, Federal Research and Production Center, FSUE 
12.	Eleron Special science and manufacturing association, FSUE 
13.	Crisis situation center of the Federal Nuclear Energy Agency, FSUE 
14.	Emergency Engineering Center of the Federal Ministry of Nuclear Power (St. Petersburg), FSUE 
15.	Procurement RFNC VNIIEF, OJSC 
16.	Design Bureau of Automotive Transport Equipment, FSUE 
17.	Specialized Scientific Research Institute for Instrumentation Engineering, FSUE (SNIIP) 
18.	Institute of Strategic Stability, FSUE 

19.	Expedition No. 2, FSUE 
20.	Bazalt FSUE 
21.	Atombezopasnost, Coordinating Center for Design of Safety and Control Systems, FSUE 
22.	Science, engineering and certification center for comprehensive IT protection, FSUE 
23.	ROSATOM Security Service, FSUE 
24.	Krasnaya Zvezda, OJSC 
25.	N.A. Dollezhal Research and Development Institute of Power Engineering, OJSC 
26.	Sarov Generating Company, CJSC 
27.	State Research Institute of Graphite-Based Structural Materials, OJSC (NIIGrafit) 
28.	Atomspetztrans, OJSC 
29.	Sarov Heating Grid Company, OJSC 
30.	Sarov Electric Grid Company, OJSC
31.	Sarov Gas Supply Company, OJSC
32.	Housing Management Company, LLC
33.	EnergoAvtotrans LLC
34.	OKSAT NIKIET, LLC
35.	Engineering Center for Diagnostics of NPP Components at NIKIET, LLC
36.	Engineering center of strength and material science for nuclear components, LLC
37.	Sarov Electric Supply Company, CJSC
ATOMIC ICEBREAKER FLEET	
38.	Atomflot, FSUE 
MINING DIVISION	
39.	Atomredmetzoloto, OJSC (Uranium Holding ARMZ) 
40.	Khiagda, OJSC 
41.	Dalur, CJSC 
42.	Priargunsky Industrial Mining and Chemical Union, OJSC (PIMCU) 
43.	United Service Company ARMZ, LLC (USC ARMZ LLC) 
44.	Effective Energy N.V., PLC 
45.	Elkonsky Mining and Metallurgical Combine, CJSC 
46.	EKMK-project, OJSC 
47.	Orel mining chemical company, CJSC 

48.	RUSBURMASH, CJSC		85.	Angarsk Electrolysis Chemical Complex, OJSC	
49.	Gornoye Uranium Mining Company, CJSC		86.	Siberian Chemical Combine, OJSC	
50.	Uranium Mining Company, OJSC (UGRK)		87.	Urals Electrochemical Combine, OJSC	
51.	Leading design, survey, science and research Institute of industrial technologies, OJSC		88.	Production Association Electrochemical Plant, OJSC	
52.	Uranium One Inc.		89.	Engineering Center of Russian Gas Centrifuge, OJSC	
53.	Mantra Resources Limited		90.	Kovrov Mechanical Plant, OJSC	
54.	Lunnoye, CJSC		91.	Urals Gas Centrifuge Plant, LLC	
55.	Avtokhoziaystvo Urtuyskoye, LLC		92.	Vladimir Production Association Tochmash, OJSC	
56.	Automotive Transportation, LLC		93.	Machine-Building Plant, OJSC	
57.	Electric Communications Company, LLC		94.	Chepetsky Mechanical Plant, OJSC	
58.	Mechanical Repairs Plant, LLC		95.	Moscow Polymetal Plant, OJSC	
59.	Karkhu Geology, LLC		96.	Novosibirsk Chemical Concentrates Plant, OJSC (INCCP)	
60.	Shchekotovo, LLC		97.	A.A. Bochvar High Technology Research Institute of Inorganic Materials, OJSC	
61.	Itmanovo Agriculture Firm, LLC		98.	TVEL-INVEST, CJSC	
62.	Dalur-Finance, LLC		99.	TVEL-Stroi, CJSC	
63.	Rusburmash-Kazakhstan Joint Venture, LLP		100.	Novouralsk Research and Design Center, LLC	
64.	Firm Geostar, LLC		101.	Novouralsk Instrumentation Plant, LLC	
65.	Streltsovsky Construction and Maintenance Trust, LLC		102.	OKB Nizhniy Novgorod, CJSC	
66.	Television Center, CJSC		103.	Centrotekh SPb, CJSC	
67.	Public Catering and Retail Directorate, LLC		104.	Ruskorp Sung Won UEIP Co., CJSC	
68.	Uranodobicha Central Office, LLC		105.	Recreation Facility Siniy Utes, OJSC	
69.	Armenia-Russia Mining Company, CJS		106.	Industrial innovations, CJSC	
70.	Runex Uranium RTY LTD		107.	Organization of retailing and public catering, LLC	
71.	VOSTOK POWER RESOURCES LIMITED		108.	ELEMASHPETSTRANS, LLC	
72.	ARMZ NAMIBIA (PROPRIETARY) LIMITED		109.	ELEMASH-AUTO, LLC	
73.	Dalur Service, LLC		110.	ELEMASH MAGNIT, LLC	
74.	Mavuzi Resources Pty Ltd		111.	Treatment and Recreation Complex – Resort Kolontayevo, OJSC	
75.	Mantra East Africa Limited		112.	ELEMASH-TEK, LLC	
76.	Mantra Tanzania Limited		113.	NZHK-Instrument, LLC	
77.	Nyanza Goldfields Limited		114.	NZHK Automotive Management, CJSC	
78.	Ruvuma Resources Limited		115.	Bylina Boarding House, CJSC	
79.	Mantra Uranium South Africa (Pty) Ltd		116.	Automotive transport management, LLC	
80.	Mavuzi Minerals Pty Ltd		117.	Hotel Complex Glazov, LLC	
81.	Headspring Investments (Proprietary) Limited		118.	Health Resort and Rehabilitation Center Cheptsya, LLC	
82.	OmegaCorp Minerails Limitada		119.	Teplovodokanal, LLC	
FUEL DIVISION					
83.	TVEL, OJSC				
84.	United Company Enrichment and Sublimation Complex, OJSC				

120.	Energoremont, LLC	
121.	Machine-Building complex ChMZ, LLC	
122.	Instrumentation Service, LLC	
123.	Project Design Service, CJSC	
124.	Information Technology Specialized Company, LLC	
125.	Tochmash, LLC	
126.	TVEL-INVEST-Technology, CJSC	
127.	Commercial Center, OJSC	●●
128.	Iskra, LLC	●●
129.	ELEMASH OTIS, LLC	●●
130.	ELEMASH-SPECTRUBPROKAT, LLC	
131.	MSZ-MEKHANIKA, LLC	●●
132.	PSH Friazevo, LLC	
133.	NZHK-Engineering, CJSC	
134.	NZHK-Energy, LLC	●●
135.	Project Design Society, CJSC	
136.	Russian Gas Centrifuges, CJSC	
137.	KMZ-AVTO, LLC	
138.	Catering Company Kombinat Pitaniya, LLC	
139.	Chemical metallurgy plant, OJSC	
140.	Public catering, LLC	
141.	Novouralsk Dairy Factory, LLC	
142.	Merkuriy, LLC	●●
143.	Seversk telephone company, LLC	
144.	Demonstration-experimental center for decommissioning of uranium-graphite nuclear reactors, LLC	
145.	Pioner Instrumental Firm, LLC	
146.	Stankomash, LLC	
147.	Tochmash-auto, LLC	●●
148.	UEHK-TELECOM, LLC	
149.	Medical Center Izumrud, LLC	
150.	Uralskaya Agrifirm, LLC	
151.	Ecoalians, LLC	●●
152.	Uranium enrichment center, CJSC	
153.	Electro-chemical convertor plant, LLC	
154.	Cathode Lithium Materials, LLC	
155.	Scientific and production enterprise NANO-ELECTRO, LLC	
156.	Atom mashkomplex UEKhK, LLC	
157.	Transportation-logistics center, LLC	
158.	Energy service company, LLC	

159.	SybRegionPromservice, LLC	
160.	Pribor-service, LLC	
161.	Siberian mechanical plant, LLC	●●
162.	Promparkservice, LLC.	
163.	Automotive Transport Management, LLC	
164.	Central Design-technological Institute, OJSC	
165.	NP Atom, CJSC 3AO «НП-Атом»	
166.	Health Resort and Rehabilitation Center Beryozka, LLC	

SALES AND MARKETING

167.	Techsnabexport, OJSC	●●●
168.	INTERNEXCO GmbH	●●
169.	Crown, LLC	●●
170.	Saint Petersburg ISOTOPE, OJSC	●
171.	International Uranium Enrichment Center, OJSC	
172.	TENEX-Korea Co., Ltd.	
173.	KABUSHIKIKAISHA TENEX-JAPAN (TENEX-Japan Co.)	
174.	TRADEWILL LIMITED	
175.	TENEX-Complekt, LLC	●●
176.	TENEX-Logistics, CJSC	
177.	TENAM Corporation	
178.	KWINDER HOLDINGS LIMITED	●●

ELECTRIC POWER DIVISION

179.	Russian Concern for Production of Electrical and Thermal Energy at Nuclear Power Plants, OJSC (Rosenergoatom)	●●●
180.	Atomtekhenergo for setup, operation improvement and control of nuclear plants, OJSC	●●●
181.	Electrogorsk Research and Engineering Center on Nuclear Power Plant Safety, OJSC	●●
182.	Atomenergoremont, OJSC	●●●
183.	Russian national science and research Institute for operation of nuclear electric plants, OJSC	●●●
184.	Atomtrans, OJSC	
185.	Atomenergobyt, OJSC	●
186.	Russian national industrial concern Zarubezhatomstroi, OJSC	●●
187.	Beloyarsk NPP-2, OJSC	
188.	Nuclear Power Financial and Production Company, CJSC	
189.	Energotominvest, LLC	
190.	Capital construction management, LLC	
191.	Housing Utility DOM, LLC	

192.	TsentrAtom-Komplekt, LLC	
193.	Consist-Operator-Communications, CJSC	
194.	Kola NPP-Auto, LLC	
195.	Balakovo NPP-Auto, LLC	
196.	Leningrad NPP-Auto, LLC	
197.	Novovoronezh NPP-Auto, LLC	
198.	Bilibino NPP-Auto, LLC	
199.	Beloyarsk NPP-Auto, LCC	
200.	Construction Logistics and Accounting Office, CJSC	
201.	Capital construction management, OJSC	
202.	AtomTeploSbyt, LLC	
203.	Atomtekhexport", OJSC	
204.	Kola NPP-Service, LLC	
205.	Baltic NPP, OJSC	
206.	Science and testing center for nuclear electric plant equipment", OJSC	
207.	Beloyarsk NPP – Service, LLC	
208.	Volgodonsk NPP – Service, LLC	
209.	Kalinin NPP – Service, LLC	
210.	Kursk NPP – Service, LLC	
211.	Kursk NPP – Auto, LLC	
212.	Novovoronezh NPP – Service, LLC	
213.	Smolensk NPP – Service, LLC	
214.	EnergoAtomProject, LLC	
215.	Association of Minatom Companies, LLC	
216.	Triada, CJSC	
217.	Centralized repair service plant, OJSC	
218.	AtomTeploElectroSet, LLC	
219.	Permatomenergosbyt", OJSC	
220.	Impulse, OJSC	
221.	PenzaAtomEnergoSbyt, OJSC	
222.	RAOTEKH, CJSC	
223.	Center Atom-Innovations, LLC	
224.	Managing Company for Industrial Park of Construction Materials, LLC	
MACHINE-BUILDING DIVISION		
225.	Nuclear power plant machine-building, [Atomenergomash, OJSC]	
226.	Machine-Building Plant ZiO-Podolsk, OJSC	
227.	Afrikantov Experimental Design Bureau for Mechanical Engineering, OJSC (OKBM Afrikantov)	
228.	Experimental & Design Bureau OKB Gidropress, OJSC (GIDROPRESS)	
229.	State Specialized Design Institute, OJSC (GSPI)	
230.	Directorate of Central Client, OJSC	
231.	Russian Power machine-building company, CJSC	
232.	Engineering Company ZIOMAR, OJSC	
233.	Central Design Bureau of Machine Building, OJSC	
234.	State science center Science and Manufacturing Association - Central science and research Institute of machine-building technologies, OJSC	
235.	Sverdlovsk Research Institute of Chemical Machine-building, OJSC (SverdNIIkhimmash)	
236.	Specialized science and research Institute of instrument-building (OJSC SNIIP), OJSC	
237.	Industry based engineering design bureau for advanced technologies and glass products, OJSC	
238.	All-Russia Research and Development and Design Institute of Nuclear Machine-building, OJSC (VNIIAM)	
239.	Stalenergoproekt, LLC	
240.	Atomtruboprovodmontazh, CJSC	
241.	Nizhnyaya Tura Machine Engineering Plant Venta, OJSC	
242.	AEM-Technology, CJSC	
243.	Energomashcomplex, LLC	
244.	Experimental Refractory Metals and Hard Alloys Plant, OJSC (OZTMITS OJSC)	
245.	ARAKO spol. s r.o.	
246.	Petrozavodsk plant of paper-making machine-building, CJSC	
247.	Petrozavodskmash Foundry, OJSC	
248.	Energomashspecstal, OJSC	
249.	Construction and Installation Company Yug, CJSC	
250.	AEM-Leasing, CJSC	
251.	Transportation technology machine-building, CJSC	
252.	ATOMENERGOMASH CYPRUS LIMITED	
253.	Turbine Machine Building, LLC	
254.	Real-estate property management — Estate, LLC	
255.	Direct Investment Company RusAtomStroy-Invest, CJSC	
256.	Trust SpetzAtomEnergoMontazh, LLC	
257.	Institute for Physical and Technical Problems, OJSC	
258.	Technologies of Power Machine-building, LLC	
259.	RusAtomStroi-Management, CJSC	
260.	BINOM, LLC	
261.	Power machine-building equipment Trading House, CJSC	

262.	VenTrans, OJSC	
263.	AEM-logistics, CJSC	
264.	ALSTOM Atomenergomash, LLC	
265.	Neftegazspetzstroi, LLC	
266.	EMSS Holdings Limited	●●
267.	UMZ, LLC	●●
268.	KarelMashInvest, LLC	●●
269.	Karelbummash, LLC	●●
270.	BummashAuto, LLC	
271.	Foundry plant, LLC	●●
272.	Non-integrated wind power generating company, CJSC	
273.	VNIIAES ASU TP, OJSC	
274.	ARACO, LLC	
FUTURE MATERIALS AND TECHNOLOGIES		
275.	SPC Khimpromengineering, OJSC	●●
276.	Argon LLC	●●
277.	Carbon and Composite Material Plant, LLC	●●
278.	SNV, LLC	●●
279.	Technology Center TENEX, CJSC	●●
280.	Alabuga Thread, LLC	●●
OVERSEAS		
281.	Rusatom Overseas, CJSC	●●
282.	AO NPP Akkuyu	●●
283.	Rusatom Service, CJSC	●●
CONSTRUCTION OUTSIDE RUSSIA		
284.	Nizhny Novgorod Engineering Company Atomenergoproekt, OJSC (OJSC NIAEP)	●●●●
285.	Atomstroieksport, CJSC	●
286.	ASE-Engineering, LLC	●
287.	NUKEM Technologies GmbH	●
288.	Kazakhstan-Russian Nuclear Power Plants, OJSC	
289.	Ventilation Systems, CJSC	
290.	Atomstroieksport-Finance, LLC	
291.	Atomstroyinvest, LLC	
292.	Atomstroifinance, LLC	
293.	Construction and Installation Directorate No. 1, LLC	
294.	Construction and Installation Directorate No. 2, LLC	
295.	Volgodonsk Installation Directorate, LLC	

296.	Urals industrial assembly company, CJSC	
POWER ENGINEERING		
297.	Atomenergoprojekt, OJSC	●●●
298.	Nuclear Energy Construction Corporation, OJSC	●
299.	Research and Design Institute of Installation Technology – NIKIMT	●●●
300.	Saint Petersburg Research, Design and Engineering Institute ATOMENERGOPROEKT, OJSC (SPb AEP)	●●●●
301.	Energospescomtazh, OJSC	●●●
302.	East-European HQ science research and design Institute of energy technologies” (OJSC VNIPIET HQ Institute), OJSC	●●●
303.	Dedal Scientific and Production Complex, OJSC	●
304.	St. Petersburg science and research Institute Energoizyskaniya, OJSC	●
305.	Specialized Construction and Installation Directorate Lenatomenergostroi, OJSC	●
306.	Siberian design and survey Institute Orgstroyprojekt, OJSC	●
307.	VNIPIET, OJSC	●
NUCLEAR AND RADIATION SAFETY COMPLEX		
308.	Mining and Chemical Combine, FSUE	○●●
309.	RosRAO, Radioactive Waste Management Company, FSUE	○●●
310.	V.G. Khlopin Radium Institute, Research and Production Complex, FSUE	●●
311.	Federal Nuclear and Radiation Safety Center, FSUE	●●
312.	National operator for handling radioactive waste, FSUE	●
RADIATION TECHNOLOGIES PROGRAMME		
313.	United Innovations Corporation, LLC	●●
314.	All-regional unit Isotope, OJSC	●●
315.	Isotope-NIIAR, CJSC	
316.	Rewiss Services Ltd., JV	
317.	Isotope (Yekaterinburg), OJSC	
318.	RAIMS Limited	
INNOVATION MANAGEMENT UNIT		
319.	Science and Innovations, CJSC	●
320.	D. V. Efremov Research Institute of Electro-physical Instrumentation, FSUE	○●●
321.	Institute of Reactor Materials, OJSC	○●●
322.	A.I. Leipunsky Institute of Physics and Power Engineering, State Scientific Center of the Russian Federation, FSUE	○●●

323.	Federal State Research and Design Institute of Rare Metal Industry – Giredmet, OJSC	
324.	Basic Research Institute of Chemical Technology, OJSC (VNIIEKhT)	
325.	Troitsk Institute of Innovative and Thermonuclear Research, State Scientific Center of the Russian Federation, FSUE	
326.	Luch, Research Institute – Research and Production Complex, FSUE	
327.	State Research Center – Research Institute of Atomic Reactors (SRC NIIAR), OJSC	
328.	L.Ya. Karpov Physical-Chemical Research Institute (Karpov NIFKhl), FSUE	
329.	Technopark-Technology, OJSC	
330.	AKME-Engineering, OJSC	
331.	National Technical Physics and Automation Research Institute (NIITFA), OJSC	
332.	Russian-Belarus Joint Venture Isotope Technologies, CJSC	
333.	Joint Venture Beijing CAEI-RIAR Radioisotope Co. Ltd.	
334.	CHU ITER Design Center	
335.	Russian Superconductor, OJSC	
336.	Nuclear Physics Research Science and Technology Center, OJSC	
ADMINISTRATIVE AND LOGISTICS COMPLEX		
337.	State Atomic Energy Corporation ROSATOM	
338.	Nuclear Energy Industrial Complex (OJSC Atomenergoprom), OJSC	
339.	TENEX-Service, CJSC	
340.	Greenatom, CJSC	
341.	Atomkomplekt, OJSC	
342.	Kombinat Pitaniya (Catering company), FSUE	
343.	Administrative Building Management Company, FSUE	
344.	Production system PCR, OJSC	
345.	INTER RAO EEC Center of energy efficiency, LLC	
346.	ROSATOM FINANCE LTD	
347.	ChU GK ROSATOM Industry Center of Capital Construction	
348.	NOU Central Institute for advanced training courses	

ADMINISTRATIVE COMPLEX		
349.	Center for non-profile asset management in the nuclear industry, OJSC	
350.	CenterAtomConsult, OJSC	
351.	Media Center of Nuclear Industry (Atom-Media), OJSC	
352.	Recreation and Sports Center OLenKur, OJSC	
353.	Alliancetransatom, OJSC	
354.	Molniya Machine-Building Plant Production Association, OJSC	
355.	Kurchatovez, LLC	
356.	EFCON, OJSC	
357.	Science and production center for conversion, OJSC	
358.	Center for Federal Government’s Asset Management, FSUE	
359.	ROSATOM Securities Limited	
360.	Atom-Trans Service, CJSC	
361.	Teleradiovecshatel'naya Company Desna-TV, LLC	
362.	Interdepartmental Specialized Training Center, FSI	
363.	Energopromanalitika, OJSC	
364.	AtomBusinessProjekt, LLC	

ENTITIES OUTSIDE CONSOLIDATED BUDGET PERIMETER ¹⁶		
366.	Floorboard Trading & Investments Limited ¹⁷	
367.	SALIDA CAPITAL CORP	
368.	UMP Trading	
369.	UMZ TRADE HOUSE INC	

¹⁶ These companies are not included in the consolidated budget perimeter, but are included in the financial consolidation perimeter under IFRS of SALIDA CAPITAL CORP, UMP Trading, UMZ TRADE HOUSE INC are subsidiaries of PAC Energomashspzstal.

¹⁷ Subsidiary of ARMZ, OJSC.

Feedback Questionnaire

Dear reader,

You have read ROSATOM State Corporation's fourth public Annual Report addressed to a wide range of stakeholders. The opinions of our readers are highly important to us, and

we will appreciate your contribution to further efforts geared towards increasing the quality of the Corporation's reports by answering the questions below.

Please send the completed questionnaire to Communications Department

24, Bolshaya Ordynka Street, Moscow, 119017 marked «To the Department of Communications», and/or email it to the Secretary in charge of the Committee for Public Reporting (EAMamy@rosatom.ru).

Please evaluate the report using the following criteria:

Reliable and objective information

- Excellent
- Good
- Adequate
- Poor

Was your opinion influenced by statements of independent auditors and stakeholder assurance included in the report?

- Yes
- No

Complete and relevant information

- Excellent
- Good
- Adequate
- Poor

Report structure, organization of content, and writing style

- Excellent
- Good
- Adequate
- Poor

Please name report sections that you regard as significant and useful:

What topics should be included in the next report?

Your recommendations and comments:

Indicate which of the following stakeholder groups you represent:

- Employee of ROSATOM State Corporation
- Employee of an organization that is part of ROSATOM State Corporation
- Representative of the Federal Government
- Representative of regional government
- Representative of a municipality
- Representative of a contractor/supplier
- Representative of a client/user of commodities and services
- Representative of the business community
- Representative of a public organization
- Representative of the mass media
- Representative of the expert community
- Other (please specify)

Contact Information

State Atomic Energy Corporation ROSATOM

Address: 24, Bolshaya Ordynka St., Moscow

Telephone: +7 (499) 949-45-35

Official website: www.rosatom.ru

Committee of ROSATOM State Corporation for Public Reporting

Kirill Komarov — Committee Chairman, Deputy CEO for Development and International Business

Telephone:

Department of Communications

Sergey Novikov — Director of the Department

Telephone: +7 (499) 949-44-12

Department for Legal and Corporate Issues

Alexander Popov — Director of the Department

Telephone: +7 (499) 949-45-94



Created by
Downstream Technologies

www.downstream.ru

We would like to express our cordial gratitude to the representatives of the Stakeholders of ROSATOM State Corporation. Thanks to their requirements and requests expressed in the process of dialog in the course of the preparation of the present Report, the level of disclosure of reporting has been significantly raised. We would also like to thank the companies involved in the preparation of the present Report — LLC DaC-Proekt, CJSC Technology Telescoping.