Chapter 4

OUTCOMES

Our performance depends on how effective the response to challenges is on the way towards a bigger goal. Strengthening competition calls for tailored, innovative management approaches to the management of in-house and third-party resources. Efficiency of these approaches produces substantial results and earns global recognition for the Company.

Transforming tasks
into successful projects

Chapter 4

OUTCOMES

Financial Capital

Financial Policy of TVEL FC

Financial management is carried out in accordance with the approved Financial Policy of Enterprises Comprising the Fuel Company and agreed upon by ROSATOM State Corporation.

Main provisions of the TVEL FC Financial Policy appear to be as follows:

- TVEL JSC is a pool leader and conducts overall centralized control over relationship between the TVEL JSC enterprises and financial institutions (base banks, partner banks) in management of consolidated debt portfolio, allocation of free cash and management of liquidity of enterprises;
- TVEL JSC directly approves transactions of the TVEL FC enterprises on allocation of temporarily free funds and raising loans. Financial transactions are conducted in accordance with requirements of the Uniform Industry Procurement Standard;
- intercompany loan system serves to optimize the consolidated TVEL FC loan portfolio and the cost of external funding, as well as to promote centralized funding of operation of the enterprises and current liquidity management.

Budgeting at the TVEL FC enterprises is based on the unified budget regulations and standards of ROSATOM State Corporation.

Budgets of the TVEL FC enterprises are approved by the Board of Directors of the SA based on consideration of consolidated budget of the Fuel Company by the budget committees of TVEL JSC and ROSATOM State Corporation.

In 2013, all KPI targets and performance indicators used in assessment of the Company's performance were achieved.

Financial Results of Activities

Key financial and economic indicators of financial standing of TVEL FC that characterize the efficiency and productivity of the Company's performance are shown in Table 13 below.

Overall growth of revenues of the Fuel Company in 2013 against 2012 amounted to 9,478 mln RUB (+8%). Changes were caused by both negative and positive factors. Negative factors: decline in current reloads of nuclear fuel and components for NPP within Russia as requested by the customer — Rosenergoatom Concern JSC (-8,459 mln RUB), slump in sales of fuel for research reactors (-1,323 mln RUB), reduction in sale of power-related (electric and heat) services (-1,605 mln RUB), etc. The abovementioned negative factors were made up for by sales of brand new product — fuel start-up facility for reactor BN-800 (5,121 mln RUB), increased amount and restructured fuel supplies to foreign NPPs (3,532 mln RUB), growing sales of services related to conversion and enrichment resulting from sales of enriched uranium product (5,013 mln RUB), and the growing sales of research and development, test design and scientific and engineering services (1,033 mln RUB). Revision of contract prices and rates also had positive effect on the 2013 results (3,858 mln RUB).

Changes in exchange rates had positive impact on revenues as well (1,672 mln RUB).

Table 12. KPI and Performance Indicators Achieved by TVEL FC in 2013*

GRI G3.1: 2.8

Indicator	Target	Actual value	Δ 2013/2012, %
AFCF** of TVEL FC, bln RUB	49.46	51.71	+4.55
Unit cost of principal products	100% of the plan	done	done
Revenues of Division – joint products, mln RUB	7,296.7	9,325.6	+27.81
EBITDA, mln RUB	51,021	51,163	+0.28
Labor efficiency, mln RUB/person	4.3	4.5	+4.86
Revenues from international operations (including exports by enterprises of the Russian Federation), mln USD	1,428.2	1,505	+5.38
Export orders portfolio for the 10-years period, mln USD	10,885	10,891	+0.06
Violations of Level 2 or higher under the INES scale	none	none	—
Lost time injury frequency rate (LTIFR), %	0.33	0.14	-57.58

Table 13. Key Financial and Economic Indicators of TVEL FC

Indicator	2011	2012	2013	Δ 2013/2012, %
Net sales, mln RUB	126,090	121,958	131,436	+8
Gross margin, mln RUB	33,506	39,289	39,628	+1
Gross margin percentage to revenues from sales, %	26.57	32.22	30.15	
Total administrative expenses in revenues, %	2.14	2.29	2.27	
Commercial expenses	2,434	2,400	2,224	-7
Administration costs	2,700	2,799	2,989	+7
EBITDA, mln RUB	38,078	42,668	51,163	+20
Net profit, mln RUB	16,494	19,642	23,866	+22
Net cash flow, mln RUB	1,699	-470	1,801	+483
Net assets, mln RUB	559,730	566,427	579,708	+2
Return on sales, %	13.08	16.11	18.16	+13
Return on equity, %	0.059	0.035	0.042	
EBITDA profitability, %	30.2	34.99	38.93	
Debt to equity ratio	0.08	0.11	0.13	+16

* Financial and economic indicators are given in accordance with the consolidated management accounts of FC TVEL.

** Adjusted Free Cash Flow calculated by indirect method as the amount of proprietory funds generated by the company over the period from current activities adjusted by non-cash revenues and expenditures.

Table 13. Key Financial and Economic Indicators of TVEL FC

Indicator	2011	2012	2013	Δ 2013/2012, %
Current liquidity ratio	2.39	2.52	2.42	-4
Labor efficiency, mln RUB/person	2.96	3.6	4.5	+25
Gross tax liabilities, mln RUB	25,502	23,419	27,695	+18
Dividends paid, mln RUB	3,100	19,500	18,937	-3

The bulk of revenues from sale of products, operations and services (60.6%) falls on the sale of nuclear fuel and its components. Compared to 2011, the share of this product grew considerably (55% in 2011). However, proceeds from the sale of conversion and enrichment services decreased by 19.4% against 2011 (although they were still higher than in 2012).

Table 14. Distribution of Consolidated Revenues by Areas

Product	Sales, mln RUB		
	2011	2012	2013
Nuclear fuel and components	69,189.4	75,017.3	79,603
Conversion and enrichment services	29,166.1	18,403.2	23,505.1
Gas centrifuge products	2,053.3	2,916.7	4,214.3
R&D	3,331.8	4,301.4	6,338.5
Other	22,349.3	21,319.4	17,775.1
Total	126,089.9	121,958	131,436

> In 2013, the exports amounted to USD 1,505 mln (36.2% of total revenues of the Company against 35% in 2012). The largest share in export revenues comprises of the sale of nuclear fuel and its components — 95.5%.

Table 15. Distribution of Export Revenues by Products

Product	Sales, mln USD		
	2011	2012	2013
Nuclear fuel and components	1,310.6	1,353.5	1,437.1
Engineering services	19.7	7.2	6.3
Lithium products	15.9	16.3	13.3
Calcium, titanium, zirconium	13.4	12.4	12.3
Isotope products	7.6	9.9	10.1
Other	25.8	29.7	26
Total	1,392.9	1,429	1,505

> Net profit of TVEL FC in 2013 grew by 21.5% against 2012, amounting to RUB 23,866 mln.

In 2013, TVEL FC took certain measures to optimize its costs, such as cutting the administration costs, energy saving, development of production, introduction of modern technologies and the ROSATOM production system, optimization of areas (abandoning and leasing out) , etc.

> Main factors causing the growth of net profit include increase of revenues, optimization of costs, growth of other income and change of exchange rates. Thanks to the optimization efforts of the management personnel of the FC enterprises, the costs were reduced in 2013 by RUB 1,699 mln.

Table 16. Dividends, thousand RUB

Indicator	2011	2012	2013
Dividends paid to Atomenergoprom JSC	3,138,000	19,486,653	18,937,488
Dividends paid to TVEL JSC by the SA	3,204,715	515,740	4,150,891

TVEL JSC Dividends Policy with respect to its subsidiaries and affiliates is based on the need to make investments in production, modernization and technical upgrade.

Key Risks Management Results

Risk	Risk Management Results
Exchange risk	Mitigated by application of hedging tools
Loan risk	Mitigated by insurance and reduction of the share of advance payments in settlements with external suppliers

Investment Activity

TVEL FC conducts its investment activities in accordance with Uniform Industry-specific Policy of ROSATOM State Corporation and its organizations and in accordance with the following industry-specific documents:

- TVEL JSC Investment Projects and Programs Management Standards;
- Uniform Industry-specific Regulations for Corporate Projects Portfolio Management of ROSATOM State Corporation and its organizations;
- uniform industry-specific guidelines on handling requests for consolidated investment resource of ROSATOM State Corporation and its organizations;

- uniform industry-specific guidelines on execution of project identification summaries of ROSATOM State Corporation and its organizations;
- Order "On Participants of Investment Activities of TVEL JSC and Enterprises Comprising the Fuel Company";
- Provisions on TVEL JSC Investment Committee.

> The Investment Committee (hereinafter — "the Committee") is a permanent collegiate advisory body acting under the guidance of the Chairman and implementing principles of the investment policy of ROSATOM State Corporation and its organizations.

Primary goal of the Committee is to shape out the agreed opinion with respect to:

- TVEL FC investment priorities in order to implement the Operations Strategy of ROSATOM State Corporation and TVEL FC;
- composition, structure, parameters of TVEL FC project portfolio and amendments to it;
- solutions that would promote implementation of TVEL FC projects and acquisition of expected results;
- control of TVEL FC project implementation on each stage of the project life cycle through preventive and corrective actions.

TVEL JSC Investment Committee

Chairman	Y.A. Olenin — President of TVEL JSC
Deputy Chairman	N.V. Nikipelova — Senior Vice-President of TVEL JSC for Finance, Economy and Corporate Management
Secretary	E.I. Lukina — Director of Department for Investments and Implementation of Strategic Programs of TVEL JSC
Members	V.V. Rozhdestvensky — Senior Vice-President of TVEL JSC for Production
	P.I. Lavrenyuk — Senior Vice-President of TVEL JSC for Science, Engineering, Technology and Quality
	Y.A. Kudryavtsev — Senior Vice-President of TVEL JSC for Development of New Businesses
	K.K. Sokolov — Vice-President — TVEL JSC Executive Officer, Energy Resources
	E.V. Lyakhova — Director, Management of Investments and Operations Efficiency of ROSATOM State Corporation
	V.I. Korogodin — Director for Lifecycle Management of the Nuclear Fuel Cycle and NPP of ROSATOM State Corporation
	N.S. Khlebnikova — Director of the Investment Management of ROSATOM State Corporation
	S.V. Komova — Head of Department of Investment Control of ROSATOM State Corporation

Investment Control Mechanisms include:

- joint decisions regarding the investments made by TVEL JSC Investment Committee or, depending on the value and strategic importance of the investment project, by the Investment Committee of ROSATOM State Corporation;
- certification of investment projects and programs, including the elaboration and description of the current status, feasibility studies and plans of their implementation;
- "gate" approach in management of investment projects and programs, including the audit of efficiency and effectiveness of their implementation;
- annual preparation and updating of the FC Investment Memorandum defining the mid- and long-term prospects of investment activities of the enterprises within the perimeter of TVEL FC, followed by approval thereof by the Investment Committee of TVEL JSC.

Investment Activity Results

In 2013, TVEL JSC Investment Committee convened 18 times, including 4 meeting in presentia. The amount of investment project financing reached RUB 36,920 mln (RUB 41,328 mln in 2012). Since TVEL FC is implementing over 250 investment projects simultaneously, the amount of funding tends to vary year after year, depending on combination of various stages of their life cycles.

Funding of industrial and technological base of primary production accounts for the biggest share in overall investment outlay.

Manufactured Capital

Production and Economic Results

> TVEL FC enterprises fulfilled their quotas for output and sale of products and services in 2013, thereby enabling the Company to perform its contract obligations to Russian and foreign customers in full.

Significant growth of labor efficiency throughout TVEL FC in 2011-2013 is indicative of growing efficiency of production — one of the main business objectives. The growth is achieved through introduction of the ROSATOM Production System ("the RPS")* and personnel downsizing through restructuring of the Fuel Company.

Table 17

Description	Unit of measurement	2011	2012	2013	Δ 2013/2012, %
Average staffing number	person	42,581	34,088	29,238	- 14.2
Labor efficiency	mln RUB/person	2.96	3.6	4.5	+ 25
Proceeds	mln RUB	126,090	121,958	131,436	+ 7.8

* Chapter 4 Section "Productive Efficiency Management".

Management of TVEL JSC subsidiaries and affiliates in the years to come shall carry on with transformation of production relations at the enterprises, organize small groups* as a form of production control covering 100% of the main workers, increase the load on personnel, build a system of interaction between all management levels through controlled efficiency indicators and development of the internal communication system**.

Stable relationships with contractors allow TVEL FC to develop production plans for future period. Thus, the foreign order portfolio amounts to USD 10.9 bln over a period up to 2023 and includes the supply of fuel assemblies for foreign reactors of Russian design, BWR and PWR reactors, and fuel pellets for AREVA NP.

Separation-Sublimation Complex

> All enterprises of separation and sublimation complex improved the efficiency of their production thereby boosting the labor efficiency visibly exceeding the levels of prior years.

Table 18. Labor Efficiency at the SSC Enterprises, mln RUB/person

Enterprise	2011	2012	2013	Δ 2013/2012, %
JSC SGChE	2	2.6	2.9	12
JSC AECC	2	3.3	4.45	35
JSC PA ECP	2.4	3.9	4.8	23
JSC UEIP	2.9	4.6	5.9	28

Key Results of 2013 of the enterprises comprising the separation and sublimation complex are indicative of diversification of uranium raw materials used by TVEL FC, positions retained by the Fuel Company on international markets, upgrade of the applied technologies and optimization of territorial structure of production:

- all enterprises completed the manufacture and shipment of the last consignment of products under the HEU-LEU program;
- JSC UEIP manufactured the first consignment of products for TSOU CJSC;
- January-February 2013 — acting under the trilateral agreement for manufacturing of nuclear fuel for the CEFR reactor JSC PA ECP made highly-enriched (64.4%) uranium oxide at the HEU production line put into operation on November 23, 2012;
- October 2013 — sublimation plant of JSC SGChE successfully ran test processing of Grade H uranium tetrafluoride supplied by JSC CMP as part of the arrangements to improve conversion technology simultaneously making uranium hexafluoride from various raw materials for TVEL FC;
- JSC SGChE refined (including affinage, conversion and enrichment) the pilot batch of Australian material delivered under the inter-governmental agreement by and among Russia and Australia;

* "Small group" means a small (6 to 10 persons) group of individuals directly engaged in operations (workers, operators, employees) in a chain of value engineering for external or internal consumers.

** Chapter 4 Secttion "Stakeholders Engagement".

- JSC SGChE refined the pilot batch of uranium raw materials supplied by JSC AECC under the program of concentration of conversion facilities of the Fuel Company at JSC SGChE.

Main tasks of TVEL FC separation-sublimation complex for 2014 and mid-term period include:

- shut the sublimation facility of JSC AECC down on April 1, 2014 followed by decommissioning thereof;
- concentrate all conversion facilities at JSC SGChE and commence production of the entire industrial batch of uranium hexafluoride at JSC SGChE on April 1, 2014;
- JSC UEIP to reach contract output (5 mln SWU) for TSOU CJSC.

Nuclear Fuel Production Complex

Production and sales of fuel assemblies for nuclear power and research reactors in is the core activity of TVEL FC*.

In 2013, the share of revenues from sale of TVS reached 56% of total revenues of TVEL FC.

Table 19

Indicator	2011	2012	2013
TVS sales revenues, mln RUB	63,623	67,550	73,595

> Over the period of 2011-2013, revenues from TVS sales grew by RUB 9,972 mln (by 15.7%).

Table 20. Distribution of Revenues from Sales of Nuclear Fuel by Geographic Location of Consumers

Consumer category	2011		2012		2013	
	mln RUB	%	mln RUB	%	mln RUB	%
Russia	29,793	46.8	31,022	45.9	31,973	43.4
Europe	31,923	50.2	36,528	54.1	39,689	53.9
Asia	1,907	3.0	0	0	1,933	2.6
Total	63,623	100	67,550	100	73,595	100

Product consumption structure does not change too much. Main consumers are still represented by Russian and European NPPs (43.4% and 53.9% of the 2013 revenues accordingly).

> TVEL FC fulfilled the nuclear fuel quotas for 2013 entirely.

* Chapter 1 Section "Value Creation".

Table 21. Production by Enterprises Comprising the Fabrication Unit, ea.

Product	2011	2012	2013	2014(plan)
TVS VVER-1000	1,289	1,119	1,222	1,331
TVS VVER-440	1,769	1,806	1,744	1,645
TVS RBMK-1000	3,210	2,690	2,680	2,940
TVS BN-600, BN-800	405	437	485	290
TVS EGP-6	144	96	144	144
TVS for research reactors	630	227	270	371
TVS PWR, BWR	116	200	321	312
Total TVS	7,563	6,579	6,866	7,033
Ceramic fuel pellets, тU	1,583	1,534	1,392	1,374

Planned volume of produced fuel depends on preliminary orders of consumers based on the plans for fuel loading and reloading.

Table 22. Dynamics of Labor Efficiency at Fabrication Complex, mln RUB/person

Enterprise	2011	2012	2013	Δ 2013/2012, %
MSZ JSC	2.5	3	3.56	19
JSC NNCP	1.9	2.6	3.85	48
JSC CMP	2.4	2.6	2.94	13
JSC MZP	3	4.4	7.44	69

> Labor efficiency at the enterprises of fabrication complex grew considerably.

Key Results of 2013

JSC NNCP:

- mastered the technology and launched production of TVS VVER-440 shanks and heads;
- manufactured pilot batch of TVS-KVADRAT for test run of PWR and subsequent movement to the market of nuclear fuel for reactors of Western design;
- launched the production line and acquired permits and licenses for silicate fuel with plate-type fuel elements for research reactors of Western design.

MSZ JSC:

- completed preparations for the launch of production of the necessary civil products under the JSC MZP-MSZ JSC transition program;

- completed TVS initiator set for newly commissioned unit BN-800;
- manufactured a set of fuel for research fast reactor CEFR (China);
- commissioning of line for acceptance and vaporization of customer-owner uranium hexafluoride from 30V containers of Western design under international contracts;
- manufactured TVS startup package for unit BN-800 commissioned at Beloyarsk NNP; commissioning of BN-800 reactor will help commence the environmentally friendly ("looped") nuclear fuel cycle, fine-tune the technology and create a production base to manufacture mixed uranium-plutonium fuel for the prototype fast reactors designed to enhance security and performance, promote disposal of spent nuclear fuel at thermal neutron reactors and recycling of waste uranium and plutonium.

JSC CMP:

- completion of re-equipment of forming line and mass production of tubes and rods from oversized bars;
- mastered production, first commercial batch of ø13.8*0.25 zirconium tubes manufactured.

Key Tasks of TVEL FC Nuclear Fuel Fabrication complex in 2014:

JSC NNCP:

- make and supply to the Western European customer 4 TVS-KVADRAT-assemblies for test run in PWR;
- manufacture TVS of start-up zone for Unit 3 of Rostov NPP;
- manufacture a set of fuel for Unit 4 of Balakovo NPP with new miser units "Vikhr".

MSZ JSC:

- Q1 2014 — manufacture additional batch of TVS for BN-800;
- commercial operation of uranium hexafluoride evaporation from horizontal containers of Western design 30V.

Gas Centrifuge Complex

SSC companies are the main consumers of the gas centrifuge complex.

Proceeds of gas centrifuge complex in 2013 accounted for 3.21% of total revenues of TVEL FC, which is 1.3 times higher against 2012.

Gas centrifuge production quotas were fulfilled in 2013 in full.

Mass production of Generation 9 gas centrifuges commenced in 2013.

As part of centralization, mass production of gas centrifuges is focused on KMP OJSC and UGCMP Ltd., whereas parts and components are made by JSC VPA Tochmash.

Table 23. Dynamics of Labor Efficiency at Gas Centrifuge Complex, mln RUB/person

Enterprise	2011	2012	2013	Δ 2013/2012, %
KMP OJSC	1.7	2	2.64	32
JSC VPA Tochmash	1.3	1.1	1.05	-5
UGCMP Ltd.	1.5	2.5	2.28	-9

Key Events of 2013:

- pilot batch of OP-1 — a prospective gas centrifuge made at KMP OJSC;
- mass production of Generation 9 gas centrifuges commenced at UGCMP Ltd.;
- production of TVS 131 and TVS 131T commenced at JSC VPA Tochmash;
- production of cable- and junction boxes for NPP commenced at Uralpribor Ltd. A batch of products supplied for launch of Unit 4 at Beloyarsk NPP;
- TVEL FC drafted and approved the Development Program for its enterprises of gas centrifuge complex.

> As on December 31, 2013, JSC PA ECP and JSC UEIP commissioned and operate industrial units of Generation 9 gas centrifuges.

Plans for 2014:

- preparation for manufacture of new products to increase proceeds from sales of non-nuclear products;
- make prototype and test batches of prospective gas centrifuge;
- manufacture and supply gas centrifuges to upgrade separation enterprises of the separation-sublimation complex;
- manufacture and supply auxiliary equipment for modernization of SSC separation enterprises.

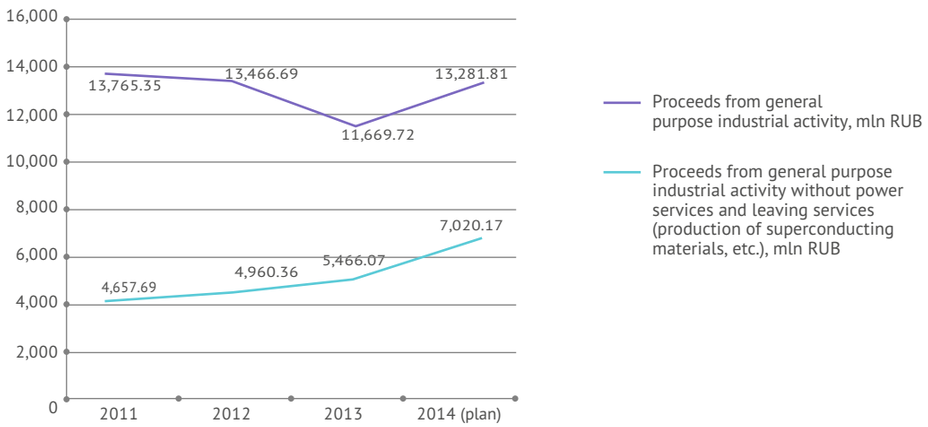
Non-nuclear Production

TVEL FC develops the production of competitive, high-tech products for nuclear industry and other sectors. The Fuel Company understands that expansion of general purpose industrial activities (non-nuclear production and services) is necessitated not only by the need to explore the new markets beyond the NFC, but also by the need to create replacement high-tech production facilities to employ qualified personnel that was affected by downsizing in the course of restructuring.

At the end of 2013, general purpose activities accounted for 9% of total revenues of TVEL FC (11% in 2012).

Sales of general purpose products slumped by 13.3% in 2013 and amounted to RUB 11,669 mln, including exports — USD 44.5 mln Compared to 2012, the sales of non-nuclear products grew by 3.5%. (+14.2% in 2012 against 2011).

Fig. 9. Dynamics of Proceeds from General Purpose Industrial Activities in 2011-2013



Changes in the amount of proceeds from non-nuclear products in 2013 were caused by the slump in sales of power services and cutting of supplies under the ITER project. JSC PA ECP also performed a one-time contract for the delivery of metal structures to FGUP MCC in 2012. No similar contract was executed for 2013.

Out of a variety of key events related to manufacture of general purpose products in 2013, one should single out the approval of the Metallurgy Industry Development Concept on the basis of JSC CMP and commencement of commercial production of titanium rolled stock.

Results of Sector-specific Risk Management

Risk	Risk Management Results
Increase in cost of fabrication, enrichment and conversion services and production of gas centrifuges	Mitigated by introduction of innovative technologies and engineering, implementation of energy saving and energy efficiency programs
Property risk	Mitigated by insurance
Commodity risk	Totally eliminated by fixed prices on the enriched uranium products, SWU included in products of the year of report in the relevant contracts

Productive Efficiency Management

> The need to expand the portfolio of orders to achieve strategic goals, and tough and ever-increasing competition on global markets always demanded from the Company special approaches to the production and management processes, and development of productive efficiency management system.

In 2008, organizations comprising the nuclear industry, including enterprises within the control loop of the Fuel Company, commenced implementation of the ROSATOM Production System ("the RPS").

The RPS is an industrial complex of interconnected production processes designed to improve enterprise performance and to minimize all kinds of costs. The system is based on Japanese philosophy of continuous improvement "Kaizen" pioneered by Toyota.

The RPS serves to promote continuous improvement of production and business processes, applied technologies and workplaces. It is based on optimization of engineering operations and cost reduction through elimination of losses resulting from activities that do not generate added value (redundant relocations, time lost on waiting, equipment downtime, redundant stock and processing, remaking, defective products and overproduction).

The Fuel Company has made considerable progress since 2010 when it commenced implementation of the RPS. Year after year, the number of projects and implementation rates thereof would increase. In 2013, TVEL FC implemented projects on three levels: industrial (26), division (7) and enterprise (92).

Specification of Projects by Levels:

- Industrial Project — a pilot project for the industry (the problem is handled for the first time and made an example for everyone);
- Division Project — the project links several enterprises of a division and requires decision-making from the managing company;
- Enterprise Project — implies optimization of internal processes at the enterprise.

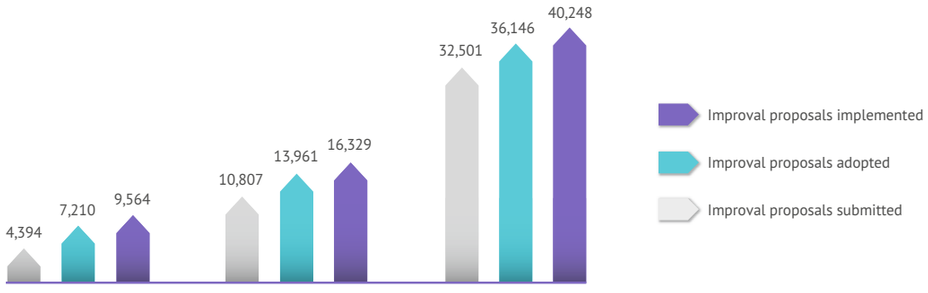
Key Tasks during the implementation of projects:

- production smoothing;
- operation in time;
- reduction of work in progress and lead time;
- personnel training and development.

> Mission of the projects — invest in people, seeing them as the biggest asset and tool of RPS, and search for reserves to enhance process efficiency.

The ROSATOM Production System is largely based on the initiative and suggestions of its workers.

Fig. 10. Handling the Suggestions for Improvement of TVEL FC in 2011-2013



There is a positive dynamics in the number of suggestions for improvement ("the SFI"): 2.5 times growth in 2013 against 2012.

Out of over 40,000 SFI, 90% were accepted and 80% were implemented in 2013. In 2012, there were 65% of implemented SFI. This happened, among other things, thanks to the automated SFI filing system and enhanced implementations control.

In order to establish a uniform procedure of formalization and consideration of SFI/innovation proposals in the SA, the Fuel Company approved in 2012 Standard Procedures on Management of SFI/Innovation Proposals of the Employees of Companies within the Control Loop of the Fuel Company.

In addition, the Fuel Company approved Standard Remuneration Procedure for the Employee of TVEL JSC and Companies within the Control Loop of the Fuel Company that includes Section 11 — Remuneration for Suggestions for Improvement.

2013 — Projects and their Results:

- **Production moved from JSC MZP to MSZ JSC:**
  1) efficient space utilization increased 4 times (from 32,500 to 8,000 m^2);
  2) productivity per person doubled (from 20 mln RUB to 41 mln RUB);
  3) personnel downsizing 4 times (from 400 to 100 persons);
  4) energy costs reduced 2.2 times.
- **JSC AECC — compacting of sublimation facility prior to movement thereof to JSC SGChE, labor efficiency doubled (personnel downsizing from 800 to 400 persons);**
- **Joint work with Rosenergoatom Concern JSC in inter-divisional projects for RBMK fuel production smoothing — production schedule smoothed by 25%;**

KMP OJSC. Project "Unit's exhaust pulling system organization"

Project tasks

1. Production of the GC-unit according to the cycle time and ensuring of the delivery "just in time"
2. Start-up of the pulling system through the whole range of production

Result

1. Reduction of lead time 2,2 times (from 1,124 to 502 hours)
2. Reduction of inventories 2,1 times (from 192 to 93 mln RUB)

Then

Now

JSC CMP. Reducing of the prime cost in the project "Losses reducing in the through flow of superconducting materials production"

Problems of the flow

1. Loss of time up to 36 days
2. Semifinished inventories at storages — 3.5 months

Result

1. Reduction of transportation by 35%
2. Reduction of lead time by 44%
3. Reduction of inventories by 30%

Then

Now

MSZ JSC. Reduction of losses due to product discrepancy
in the project "Optimization of the CANDU pellets production flow"

Problem

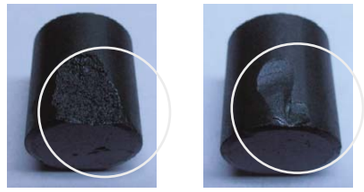
Low level of the product yield by the production of the fuel pellets CANDU — 83% for the following reasons:

1. Not sufficient stay-put feature of the powder (grain size)
2. Occurrence of shears, splits and cavities on the end pellet

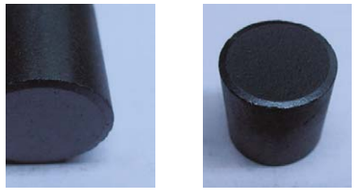
Result

1. Powder qualities were stabilized and nonconforming product has been reduced in the process of UO_2 powder production for manufacturing of CANDU pellets from 3% to 1%
2. Product yield of pellets for reactor of type CANDU was increased from 83% to 90%

Then



Now



Plans for 2014
114 projects (9 industrial, 9 division and 96 enterprise) are planned for implementation in 2014. Key indicators to be monitored: flow rate and space occupied.

> Objective — transition from local projects that aim to enhance competitive edge to comprehensive efficiency enhancement program, forming a management team out of leaders and soulmates who will capitalize on advantages of the pulling system within the SA of TVEL FC.

GRI G3.1: 4.9

Quality Management
TVEL FC builds its Quality Management on the principles of Total Quality Management set forth in International Standards ISO 9000. The Company operates an integrated corporate quality management system ("the ISM") certified for compliance with ISO 9001:2008, ISO 14001:2004 and BS OHSAS 18001:2007 by TUV International Certification*.

* Introduction of the ISM at the enterprises comprising the Fuel Company completed in 2013. The integrated corporate quality system was tested in accordance with Corporate Standard Procedure STK-7-2006 "Organization and Conduct of Audits".

The system covers the entire cycle of design, development, production, storage, supply and scientific and technical support in handling the TVS and components of reactor cores, as well as the materials and components for them.

GRI G3.1: PR1

> TVEL JSC is fully aware that quality of the supplied products is vital for safe and efficient performance of facilities that use these products.
> The main strategic goal of TVEL JSC in the sphere of quality is to ensure continuous improvement of quality of its products to maximize satisfaction of the customer, to expand markets, promote sustainable growth of its subsidiaries and attain global leadership.
>
> Excerpt from TVEL JSC Quality Assurance Policy

In 2014, the Company plans to establish Energy Management System in accordance with ISO 50001 and Supply Chain Safety Management System in accordance with ISO 28000:2007.

Project "Zero Failure Level"
TVEL JSC initiated the project in 2012 to enhance reliability and safety of products manufactured by the Fuel Company (TVS for VVER-1000). According to international practices, operational reliability of nuclear fuel is assessed by the number of unsealed fuel elements detected in the course of operation. Over the five years period preceding the commencement of the project (2008-2012) this indicator for NPP operating VVER-1000 was 1.5×10^{-5} 1/year.
By the early 2014, Memorandum on Joint Efforts to Attain Zero Failure Level for Nuclear Fuel was signed with Rosenergoatom Concern JSC. Similar, quadripartite Memorandum was signed with operators: ČEZ a.s. (Czech Republic), SE NNEGC Energoatom (Ukraine), NPP Kozloduy (Bulgaria) and TVEL JSC as the supplier of nuclear fuel. Provisions on operation under the Zero Failure Level Project became effective.
The Management Committee and the Working Group Coordination Committee are established. The Company formed working groups to design, manufacture and operate TVS and to process SNF. The working groups were charged with the task of analyzing, detection and classification of factors affecting reliability of nuclear fuel; development and implementation of a package of management and engineering arrangements to eliminate the said factors.
In 2014, the Company plans to execute management and engineering documents with respect to the project in pentalateral form (TVEL JSC, Rosenergoatom Concern JSC, ČEZ A.S., SE NNEGC Energoatom, NPP Kozloduy), make business trips to manufacturers of nuclear fuel and components, and continue the research of tendencies and patterns of the loss of TVS seals and draft recommendations for the achievement of zero failure level.
The project aims to make sure that nuclear fuel inside active zones of NPP running on VVER-1000 is 100% or so safe and fault-free. This can be really done and years of fault-free operation of nuclear fuel at numerous units of Russian and foreign NPPs running on VVER-440 and VVER-1000 only prove it, not to mention positive results of the similar project Driving To Zero implemented at the U.S. nuclear power stations running on PWR and BWR.

TVEL FC conduct annual satisfaction checks of its main customers in accordance with Customer Satisfaction Assessment Procedure based on ISO 9001:2008 requirements.

In 2013, 11 customers participated in the procedure:

- Institute of Nuclear Physics, Uzbekistan;
- National Center for Nuclear Research, Poland;
- NPP Kozloduy, Bulgaria;
- Nuclear Research Institute with the National Academy of Sciences of Ukraine;
- Fortum Power and Heat Oy, Finland;
- Temelin and Dukovany NPP (ČEZ A.S.), Czech Republic;
- Haykakan Atomayin Electrakayan CJSC, Armenia;
- Mochovce NPP (Slovenske Elektrarne a.s.), Slovakia;
- Rosenergoatom Concern JSC;
- Nuclear Research Institute, Vietnam;
- Nuclear Energy Research Center with the Academy of Sciences, Hungary.

GRI G3.1: PR5

According to the survey results, average customer satisfaction index in 2013 was 4.36 out of 5 points. No claims were filed by the customers in 2011-2013.

Fig. 11. Customer Satisfaction Assessment, 2011-2013

Intellectual Capital

Fundamental Scientific Activity

Main purpose of scientific and technological activity of the Company is to promote competitiveness and safety of production.

Scientific and engineering activities of TVEL FC are regulated by the following documents:

- ROSATOM State Corporation Program for Innovative Development and Technological Modernization for the period up to 2020 (in the public part);
- Long-term Program "Nuclear Fuel and Effective Nuclear Cycles at Russian NPP for 2012-2016 and up to 2020".

R&D composition is defined by decisions of management of ROSATOM State Corporation and by contract obligations and is subject to revision on an annual basis at the meeting of Scientific and engineering Council No. 2 of ROSATOM State Corporation — "Nuclear Materials and Technologies of Nuclear Fuel".

TVEL FC focuses its scientific and technological activities on:

- improvement of characteristics and technology of nuclear fuel production;
- design and technology development of separation-sublimation complex;
- innovative activities in non-nuclear industry.

In 2013, TVEL FC invested in research and development 3,476 mln RUB (equivalent of 2.64% of the FC proceeds (3,945 mln RUB 2012). All R&D yielded results.

The share of proceeds from scientific activities of TVEL FC in overall revenues of the company in 2013 was 4.82% or 6,338 mln RUB (3.53% or 4,301 mln RUB in 2012).

Employees of the R&D complex of TVEL FC provide training and advanced training to the highly skilled personnel in the sphere of radiation chemistry, physics of metals, adaptive metallurgy and solid state physics, fissile and structural metals, metallurgy and technology of rare, scattered and radioactive metals. JSC VNIINM serves as the basis for postgraduate center with specialization in Adaptive Metallurgy and Thermal Treatment of Metals and Alloys; Nuclear Power Units, including Design and Decommissioning; Metallurgy of Ferrous-, Non-ferrous- and Rare Metals; Technology of Rare, Scattered and Radioactive Elements. The Institute is expanding cooperation with the leading educational institutions. JSC VNIINM is the basis for the branch of the 9th Department of National Research Nuclear University MEPhI, complex branch of the department of Mendeleev University of Chemical Technology of Russia and M.V. Lomonosov Moscow State Academy of Fine Chemical Technology. The Institute also has entered into cooperation agreements with the leading industry-specific higher education institutions. As part of these agreements, students undertake internship and training, and write theses on the promising areas of the institute activities.

TVEL FC employees take part in annual international scientific conferences (e.g., "Zirconium in Nuclear Industry and Top Fuel") and seminars, and organize meetings of scientific and engineering councils of ROSATOM State Corporation and TVEL JSC.

In 2013, experts of TVEL FC took part in international conference dedicated to VVER fuel (Bulgaria), and in traditional seminars in Ukraine and Czech Republic with participation of representatives of operators and regulatory authorities of the countries involved. The seminars ad-

dressed the experience in manufacturing and operation, as well as prospects for improving the fuel and fuel cycle of NPPs with reactors VVER-440 and VVER-1000.

A seminar-workshop on heat transfer enhancement in the fuel assembly of the upgraded VVER-1000 (c/w spacer grids, debris strainers, etc.) was held in Obninsk.

Since 2008, TVEL FC has been awarding corporate prize to the teams of inventors of subsidiaries and affiliates of TVEL JSC for excellent production and financial performance, outstanding scientific and engineering performance and considerable contribution to development of the Fuel Company. Six categories of Corporate Prize were awarded in 2013: "Top Engineering and Process Solution", "Top R&D Prototype", "Top Solution for the Establishment of New Production Facility"/"Top Solution for Reconstruction and Building", "Excellent Management Performance", "Top Business Solution for Development of Entrepreneurship within the Closed Administrative Territorial Unit" and, for the first time ever, "Top Solution to Reduce Negative Environmental Impact". The Prize is due only for the projects that have been implemented over the previous three years and proved to be economically justified. Twenty-two projects and 107 authors thereof were earned the Prize in 2013.

Modernization and Technical Upgrade of Research and Engineering

TVEL FC continues modernization and development of infrastructure of its R&D complex under the projects of technical upgrade of the enterprises that comprise the complex and in accordance with Federal Target Program "New Age Nuclear Energy Technologies for the Period of 2010-2015 and up to 2020" (FTP NANET).

Objectives of modernization and technical upgrade include:

- enhancement of productivity of labor (reduction of the length of calculation and test stages);
- expansion of opportunities provided by the research (study of new physical and chemical properties of materials, expansion of the properties measurement range, enhancement of precision measurements, etc.);
- creation of innovative materials and technologies to manufacture innovative products.

Technical upgrade under the FTP NANET aims to create national wide information structure, a number of stands and experimental areas for development, manufacture, quality research and certification of structural and superconductor materials for the use in:

- new age nuclear reactors to promote practical implementation of the closed fuel cycle technology;
- magnetic systems at controlled thermonuclear fusion installations (DEMO experimental modules, DEMO reactors and commercial fusion power plants).

Technical upgrade, modernization and retrofitting will primarily cover the research departments to promote thorough and comprehensive study of the structure, physical and mechanical properties of materials on every stage of technological conversion, and to enable other vital material science studies (including nano-level).

To this effect, the following measures were taken in 2013 under the Project JSC VNIINM Technical Upgrade:

- provision of laboratory equipment to scientific divisions;
- technical upgrade of beryllium production line;
- technical upgrade of the instrumentation repairs and maintenance department: provision of modern repairs and calibration tools;
- technical upgrade of the nuclear materials storage;
- modernization of equipment used in non-destructive control of metal and welded joints;
- modernization of the auto shop;
- installation of radiation control system while handling tritium with the help of modern equipment;
- technical upgrade of scientific library, etc.

Innovative Activities in Nuclear Industry

Services and products of FE NFC represent the core activity of enterprises comprising the Fuel Company (~80% of revenues at the end of 2013), and that is exactly why innovative activities in nuclear industry are critical for ensuring long-term competitiveness and sustainability of TVEL FC.

In 2013, the Company spent 1,687 mln RUB (1,779 mln RUB in 2012) on research and development for the purpose of design and improvement of nuclear fuel.

Main tasks of innovative activities of TVEL FC in nuclear industry appear to be as follows:

- design and improvement of nuclear fuel and cores of the Russian design (primarily VVER-1000/1200);
- design of nuclear fuel for Western reactors (PWR);
- design of nuclear fuel for low-capacity nuclear power stations (LNPS) and research reactors (RR).

The Fuel Company focuses on innovative activities to improve properties and technologies of nuclear fuel and cores of the Russian reactors. Design of nuclear fuel for Western reactors, LNPS and RR is an integral element of TVEL FC emerging markets strategy.

In its effort at nuclear innovations, the Company seeks to increase the burn up fraction, life cycle of TVS, functional reliability of nuclear fuel, to justify the performance of fuel in maneuver modes, and likewise justify the performance of TVS in conditions of enhanced output of reactors while ensuring unconditional safety.

Increasing the output of active NPP reactors in excess of their 100% rated capacity appears to be a global tendency with the purpose of increasing the electric power output simultaneously ensuring safe and reliable operation.

Increase of capacity of an NPP power unit is justified due to advanced control methods, improved design methods and the use of design stock of the main equipment of a nuclear installation.

Russia is implementing the 2011-2015 Program of ROSATOM State Corporation for the Increase of Electric Power Output from the Active NPP Power Units, wherein enterprises of TVEL FC take part on the stage of design, justification and introduction of nuclear fuel suitable for power units operating at increased capacity.

Results of Activities on Improvement of Nuclear Fuel Properties and Production Technologies in 2013

Design and Improvement of Nuclear Fuel and Cores for Russian Reactors

- Front End Design TVSA-12. This kind of fuel has more uranium dioxide (10.4% more that currently used by the Ukrainian NPP), which extends the fuel cycle up to five years (rated burn up rate increased up to 68 MW*day/kg while reducing the annual supply of TVS from 42 to 36 pcs).
- Front End Design for the secondary source of neutrons.
- Front End Design for second generation fuel assembly with 7.8 mm pellets without a hole in the center (Generation 2+ fuel).
- Working construction documentation for and physical model of TVS with highly-enriched uranium for physical tests in substantiation of the active zone 14-15-1 active zone with highly-enriched intermetallic uranium fuel for universal atomic-powered icebreaker with WP RITM-200.
- Scientific and Technical Council (STC) No. 2 of ROSATOM State Corporation "Nuclear Materials and Nuclear Fuel Technologies" recommended to introduce Generation 4 TVS designed on the basis of TVSA-PLUS and TVS-2M. Due to changes in the fuel pellet structure and cladding of the fuel element, the uranium dioxide weight in the fuel assembly grows from 525 kg to 568 kg, which increases the length of the fuel campaign by 8% or reduces make-up volume by 10% over the fuel cycle of 18 months.
- Czech State Office for Nuclear Safety (SUJB) issued a license for operation of TVSA-T in conditions of the increased thermal capacity of the reactor up to 3,120 MW (104% of rated capacity) at Temelin NPP Unit 1 and Unit 2. The same units reached the rated capacity of 3,120 MW (Unit 1 in September 2013; Unit 2 in August 2013).
- Technical assignments executed for core 14-15-2 with low-enriched cermet fuel and element base for universal atomic-powered icebreaker with WP RITM-200.
- National Nuclear Security Administration (NNSA) of China issued a license for commissioning and operation of TVS-2M in 18-months fuel cycle at Tianwan NPP Unit 1 and Unit 2. A batch of fuel was shipped to PRC in November 2013.

Design of Nuclear Fuel for Western Reactors

- TVS-KVADRAT production processes qualified.
- Front End Design made for inspection and repair equipment at NPP with PWR, etc.

Design of Nuclear Fuel for LNPS and RR

- Neutronic and thermohydraulic properties of the core were studied; additional mechanical tests run on standard design TVS to substantiate core 14-14-1 project with enhanced power capacity for RU KLT-40S FNPP, etc.

2014 Plans for Nuclear Fuel Design and Improvement

- Complete licensing of TVSA-12PLUS with 12 spacer grids and unit head. Full make-up shipment to Unit 3 of Kalinin NPP.
- Front end TVS-2M project with varying designs: c/w spacer grids and shaped fags. Start production and pilot operation of TVS-2M with spacer grids at Unit 4 of Balakovo NPP.
- Prepare substantiation for introduction of TVS-2M at first load of Unit 3 and Unit 4 of Tianwan NPP (PRC).
- Substantiation for introduction of Generation 2 fuel highly-enriched within 15-months cycle under capacity increased to 1,485 MW at Paks NPP (Hungary). Manufacture and supply 12 assemblies.
- Complete testing of pilot TVS MP with LEU at research reactor Maria (Poland).
- Manufacture and supply pilot batch of TVS-KVADRAT for test operation at PWR.
- Manufacture inspection and repairs installation for NPP where one unit will be used for test operation of pilot TVS-KVADRAT assemblies, etc.

Project "Proryv"

Federal Target Program "New Age Nuclear Energy Technologies for the Period of 2010-2015 and up to 2020" makes provisions for Project "Proryv" that envisages the design of the new age lead-cooled fast reactors running in a closed fuel cycle. The intention is to create an experimental demonstration energy complex ("the EDEC") with reactor BREST-OD-300 at JSC SGChE, followed by development of the startup energy complex based on BN-1200.

To provide fuel for BREST-OD-300 and BN-1200, JSC VNIINM designs fuel assemblies and technologies for the production of high-density and thermal conductivity and low thermal capacity nitride fuel. These properties add up to conversion ratio in the core remarkably close to 1, thereby enabling the core to continue operation without any material reactivity charge, while considerably reducing maximum temperature of the fuel and thermal energy reserve therein. All this contributes to higher safety.

Under the Project "Proryv", the EDEC seeks to create a module that would make fuel (fabrication/refabrication module), an SNF conversion module and RAW conditioning technologies. As far as the conversion module is concerned, JSC VNIINM will handle the hydrometallurgical SNF conversion technology (stage immediately following the pyrochemistry) and preparation of materials for refabrication. For all these technologies, JSC VNIINM is charged with the task of preparing reference data (process description and material flow estimates) necessity for module equipment design.

As far as new age reactors are concerned, the Company intends to design and provide substantiation for the structural materials of fuel elements, absorber elements and fuel assemblies that would ensure economically feasible burn-up rates, and to develop end-to-end technologies for manufacture (from smelting to finished product) and control thereof in pursuance of front-end designs of core elements.

For details about performance in 2013 check online version of the Report.

Innovative Activities in Non-Nuclear Industry

In order to create new and innovative non-nuclear industries aimed at the development of the second core business, there are projects on four programs of innovative development: “New Energy”, “Machine building”, “Metallurgy”, “Chemistry”.

The Company’s enterprises are the basis for industrial centers created as points of growth of innovative non-nuclear production.

Creation of the new knowledge-based innovative industries at the enterprises of the FC will create more jobs and attract young professionals to form the business environment in the cities of presence of TVEL FC enterprises, improve living standards and attractiveness of the territories.

New businesses may develop at the FC enterprises on the basis of:

- basic competencies in each of the innovative development programs;
- competence of the R&D enterprises;
- availability of infrastructure for distribution of new production facilities — buildings, railways, co-generation plants, sewage treatment plants, etc.;
- availability of qualified personnel;
- good manufacturing practice.

Total revenues from sale of innovative projects in non-nuclear sphere in 2013 reached 4,819 mln RUB, which is 19% higher than in 2012 (4,054 mln RUB).

In 2013, TVEL FC invested over 1 bln RUB in innovative projects in non-nuclear sphere.

Fig. 12. TVEL FC Innovative Development Programs

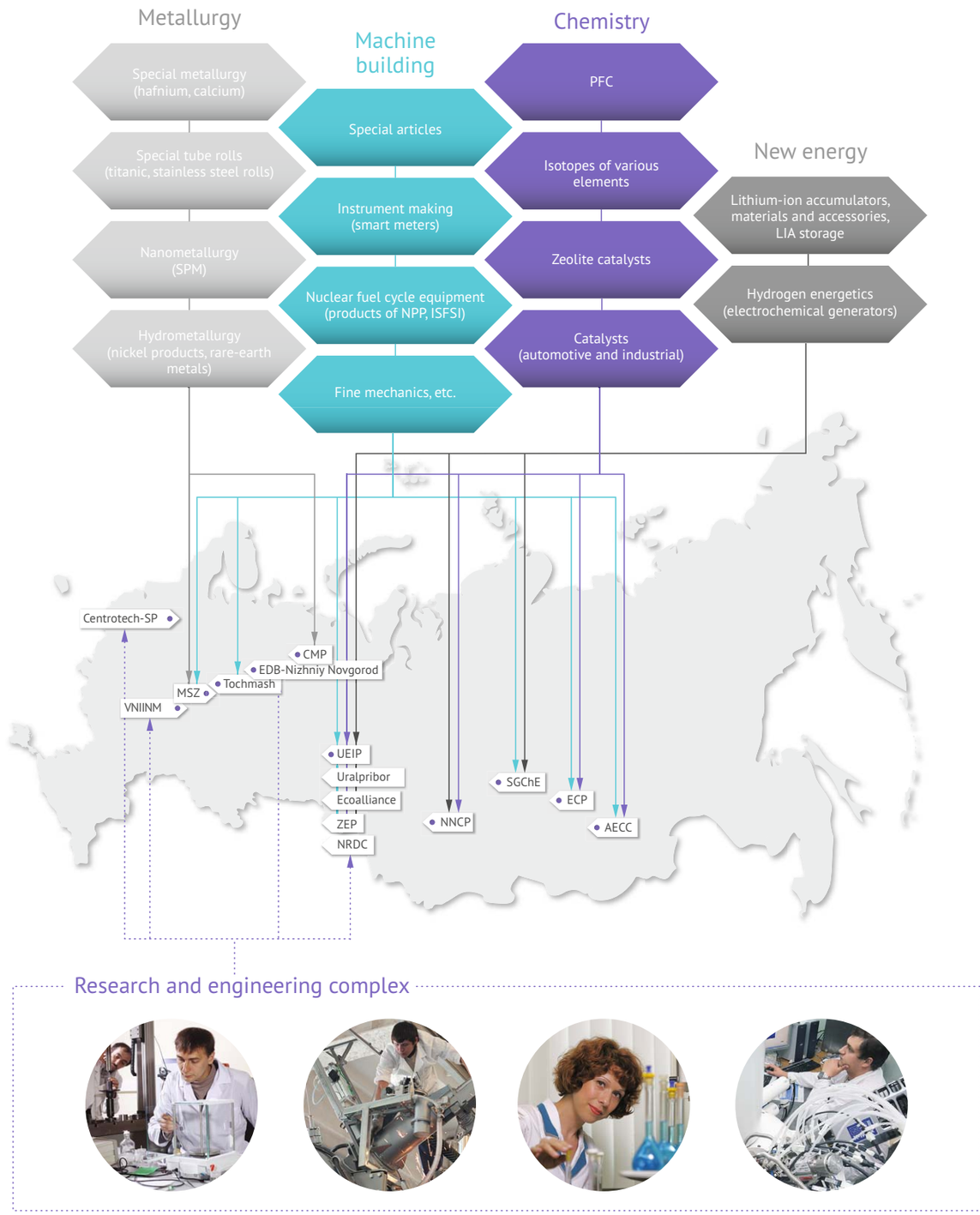


Table 24. Current Products by New Businesses of TVEL FC

New Businesses		Current Products	
		Products	Basic enterprises
New Energy	Lithium and lithium materials	• lithium hydroxide-7, lithium metal, lithium chloride	JSC NNCP
	Materials for Li-Ion cells	• lithium ferrophosphate • lithium cobaltate • anhydrous hydrogen fluoride and high-purity fluorides • graphene, graphite	JSC NNCP JSC SGChE
	Accumulators and generators, fuel elements	special purpose (military and space machinery) electrochemical power sources (alkaline fuel cells)	ZEP Ltd. (SA JSC UEIP)
Metallurgy	Special metallurgy	• zirconium alloys • titanium alloys • calcium metal • columbium alloys • bronze and copper alloys • hafnium	JSC CMP
	Special tube rolling	• ferritic steel short (up to 7 m) tubes rolling • titanium alloys rolling (tubes, rods)	JSC CMP MSZ JSC
	Nanometallurgy	• strands for Project ITER • nickel filtering elements, powders	JSC CMP JSC UEIP
	Hydrometallurgy	• production of polishing powder • production of items of ZrO2	JSC CMP
Chemistry	Production of stable isotopes	production of 95 isotopes of 19 chemical elements Ar, W, Ge, Fe, Ir, Cd, Si, Kr, Xe, Mo, Ni, Sn, Os, Pb, Se, S, Te,C, Zn	JSC PA ECP JSC SGChE
	Catalysts	• autocatalysts • zeolite catalysts for petroleum chemistry	Ecoalliance Ltd. (SA JSC UEIP) JSC NNCP
	Fluorine compounds	extra pure fluorine hydrogen	JSC AECC JSC SGChE
Machine building	Instrumentation	• cold and hot water flow meters • high-precision gas meters • car electrical equipment • printed circuit boards	JSC VPA Tochmash

New Businesses		Current Products	
		Products	Basic enterprises
Machine building	Instrumentation	• static frequency converters • dosimeters, radiation meters • LED fixtures • controllers	Uralpribor Ltd.
	Equipment for nuclear fuel cycle	• equipment for storage of spent nuclear fuel (capsules, canisters) • ball- and screw-type plugs • stop valves • servomotors • units and components for gas centrifuges	JSC VPA Tochmash
	Precision mechanics	engineering tools	JSC VPA Tochmash
		special tools and fixtures	JSC VPA Tochmash SibMZ Ltd.*
		vessels and other mechanical products	JSC VPA Tochmash SibMZ Ltd.

Since the Russian Federation participates in the international project ITER, TVEL JSC lead the development of a technology and launched the production of superconductors at JSC CMP. Superconductors have been in commercial production since 2009. In the course of development of the technology, its engineers (employees of JSC "VNIINM") solved a number of profoundly difficult technical problems. Innovative nature, relevance and practical value of these solutions have been confirmed by 18 patents.

What makes the production of superconductors at JSC CMP unique is that they are made at a single enterprise — from the basic material (columbium, columbium-titanium alloy, noil) and to finished product: superconducting strands — wires with less than 1 mm in diameter and up to 14,500 superconducting fibers.

Moscow. December 18, 2013. Ceremony of governmental awards for accomplishments in science and engineering in 2012. Seven representatives of TVEL FC earned state awards for development of technologies and the launch of production of superconductors for prospective sectors of science and engineering:

- K.M. Abramushin, JSC CMP Project Manager;
- D.S. Anishchuk, Deputy General Director of JSC CMP;
- A.E. Vorobyova, Cand. Sc. (Engineering), Deputy General Director — Department Director of A.A. Bocharova VNIINM JSC;
- S.M. Zernov, TVEL JSC, "Production of Superconducting Materials" Project Manager;
- Y.A. Kudryavtsev, Senior Vice-President of TVEL JSC;

* SA of JSC SGChE, production facilities also available at JSC PA ECP, JSC AECC.

- V.V. Rozhdestvensky, Senior Vice-President of TVEL JSC;
- K.V. Utkin, JSC CMP, Deputy Shop Manager.

In 2014, JSC CMP completes its participation in the international project ITER as the enterprise intends to have completed all of its obligations by the year end. In 2013, for further development of production of superconductive materials, JSC CMP continued development of structures and technologies for manufacture of superconductive wires used in prospective sectors of science and engineering: tomography, magnetic systems for heavy ion accelerators under the international project FAIR and national project NICA.

Intellectual Property of TVEL FC

TVEL FC owns over 1,600 items of intellectual property.

The objects of legal protection are represented by inventions, useful models, production secrets (know-how), software, databases, trademarks and production prototypes.

Intellectual Property Identification and Legal Protection System as it applies to the items created by subsidiaries and affiliates of TVEL FC is implemented in accordance with applicable laws of the Russian Federation, Standard Industry Methodological Recommendations and by local regulations of the entities comprising the Company.

Functions to identify and secure legal protection of the items of intellectual property created by the enterprises of the Fuel Company are assigned to the Department of Patent and Licensing Work of TVEL JSC, as well as to technical departments, development design offices, groups for intellectual property protection and patent-information departments of TVEL FC enterprises.

Table 25. Number of Registered Inventions, Useful models, Production Prototypes and Production Secrets (Know-How)

Items of Intellectual Property	2011	2012	2013
Inventions: Russian, pcs	53	60	65
Inventions: foreign, pcs	5	2	9
Useful models: Russian, pcs	16	12	12
Useful models: foreign, pcs	0	2	0
Production prototypes: Russian, pcs	1	1	0
Production prototypes: Foreign, pcs	0	0	0
Production secrets (know-how), pcs	67	93	97

In 2013, TVEL FC improved its performance indicators against 2012 by the number of registered items of intellectual property. The Fuel Company acquired intellectual property rights to 183 items: 74 inventions, 12 useful models and 97 production secrets (know-how); filed 69 applications for invention, 14 applications for useful models, 19 applications with respect to software and databases, and 60 applications with respect to production secrets.

Table 26. Number of Items of Intellectual Property the Rights to which were Granted to TVEL FC Enterprises in 2013

Companies of TVEL FC	Inventions, pcs		Useful models, pcs		Trade secrets (know-how) Russian, pcs
	Russian	foreign	Russian	foreign	
TVEL JSC	2	2	–	–	–
JSC VNIINM	5	–	2	–	41
MSZ JSC	7	3	1	–	7
JSC PA ECP	8	–	1	–	–
JSC NNCP	5	4	–	–	–
JSC UEIP	3	–	3	–	5
JSC CMP	2	–	–	–	–
JSC SGChE	20	–	–	–	–
JSC AECC	1	–	–	–	–
Centrotech-SPb	5	–	–	–	44
EDB-Nizhniy Novgorod	5	–	3	–	–
NRDC LLC.	2	–	2	–	–
Total	65	9	12	–	97

Table 27. Number of Russian and Foreign Applications for Inventions, Useful Models, Software and Databases, Production Secrets (Know-How) by TVEL FC in 2013

Application	2011	2012	2013
Applications for inventions: Russian, pcs	43	65	68
Applications for inventions: foreign, pcs	9	1	1
Applications for useful models: Russian, pcs	11	12	13
Applications for useful models: foreign, pcs	2	1	1
Applications for software and DB: Russian, pcs	1	2	19
Applications for software and DB: foreign, pcs	–	–	–
Applications for production secrets (know-how), pcs	29	32	60

Table 28. Number of Russian Applications for Inventions, Useful Models, Software and Databases, Production Secrets (Know-How) by TVEL FC in 2013

Companies of TVEL FC	Applications for inventions (Russian), pcs	Applications for useful models (Russian), pcs	Applications for software and DB (Russian), pcs	Applications for production secrets (know-how), pcs
TVEL JSC	5	1	1	–
JSC VNIINM	6	3	1	41
MSZ JSC	7	1	–	7
JSC PA ECP	5	1	17	–
JSC NNCP	7	–	–	7
JSC UEIP	1	2	–	5

Table 28. Number of Russian Applications for Inventions, Useful Models, Software and Databases, Production Secrets (Know-How) by TVEL FC in 2013

Companies of TVEL FC	Applications for inventions (Russian), pcs	Applications for useful models (Russian), pcs	Applications for software and DB (Russian), pcs	Applications for production secrets (know-how), pcs
JSC CMP	9	–	–	–
JSC SGChE	11	–	–	–
JSC AECC	1	–	–	–
Centrotech-SPb	9	–	–	–
EDB-Nizhniy Novgorod	2	3	–	–
NRDC LLC.	4	2	–	–
Uralpribor Ltd.	1	–	–	–
Total	68	13	19	60

Human Capital

Personnel Management

> The TVEL FC Personnel Policy is implemented in accordance with its Development Strategy and serves to promote rational use of the manpower potential that would contribute to the achievement of strategic goals of the Company.

The TVEL FC Personnel Policy serves to promote the balance of interests of its employees and the employer and aims to make employees consent to the efficient development of their professional and managerial potential in accordance with the long-term development strategy of the Fuel Company.

Main long-term goals of the TVEL FC Personnel Policy include:

- increase personnel involvement to promote sustainable growth of the company;
- continuous growth of labor productivity;
- development of common corporate values;
- enhancement of development level of strategically important competencies and skills of the personnel up to compliance with requirements to the personnel common to international global companies;
- involvement of each employee in solving the problems of strategic development and application of the "collective mind";
- promotion of social acceptability of the changes.

All personnel management activities serve to accomplish the objectives and are focused on the long-term personnel stability of the Fuel Company.

Key indicators

Indicator	2011	2012	2013
Headcount of TVEL FC staff at the year end, persons	36,922	30,964	27,159
Average headcount of TVEL FC staff in the year of report, persons	42,581	34,088	29,238
Employees with the the period in TVEL FC over 5 years, %	78	77.5	75.5
Candidates and doctors of science	308	290	312
Holders of MBA degree	11	11	12

GRI G3.1: 2.8

Steady downsizing in 2011-2013 was caused by restructuring processes, centralization of management functions and personnel outsourcing. The ultimate goal of these processes is to enhance labor productivity at the TVEL FC enterprises to match major international competitors. Average headcount of staff planned for the year of 2014 — 26,430 persons.

Manpower Size and Composition

GRI G3.1: LA4

TVEL FC hires its employees in strict compliance with the Labor Code of the Russian Federation. Top executives are covered by the program that envisages the appointment of candidates who participate in the personnel reserve program. All enterprises (excluding however TVEL JSC) comprising the Fuel Company have collective agreements that cover 100% employees. If any considerable changes are intended in the business, the organizations shall notify their employees at least 2 months prior to the effective date of any such changes. This provision is stipulated by applicable labor laws of the Russian Federation and by the Collective Agreement of each enterprise.

In 2013, the TVEL FC enterprises hired 1,857 persons, including TVEL JSC — 107 persons, 13 of whom were transferred from the enterprises of the Fuel Company and 2 employees got a transfer from ROSATOM State Corporation.

5,643 persons terminated their employment with the company. At the end of 2013, the retirement rate* by the regions where TVEL FC conducts its business varied from 27% in Sverdlovsk Region and 25.4% in Vladimir Region to 13.6% the Udmurt Republic and 9.5% in Moscow Region. The retirement rates vary by gender as well: men — 12.5%; women — 6.8%. Overall retirement rate for the Fuel Company is 19.3%. Personnel turnover rates** vary by the regions where TVEL FC conducts its business from 6% in Moscow Region and 3.3% in Vladimir Region to 0.5% in the Udmurt Republic and 0.2% in Krasnoyarsk territory. Overall personnel turnover rate for the Fuel Company is 1.6%. The most mobile age group (turnover rate > 4%) comprises of employees up to 35 years old; male employees are more mobile than female (1.8% against 1.1%).

GRI G3.1: LA2

As on December 31, 2013, TVEL FC employed 27,159 persons. Male employees comprise the

* Retirement rate means total dismissals due to any reasons divided by average headcount of staff×100%.

** Turnover rate means total dismissals of one's own accord divided by average headcount of staff×100%.

majority of the staff — 65.5% (and 92.7% of CEOs). Over 98% of employees work under the open-term employment contracts and on normal business hours (40 hours a week).

Table 29. Total Staff by Categories at the Year End

GRI G3.1: LA1

Category	2011	2012	2013	Δ 2013/2012, %
Consolidation contour (total), persons including:	36,922	30,964	27,159	-12.29
Main workers	13,553	11,716	9,743	-16.84
Auxiliary workers	9,062	6,961	5,615	-19.34
Managers	4,600	3,520	2,618	-25.63
including top executives (General Directors and their deputies)	160	132	96	-27.27
Specialists	9,024	8,256	8,839	7.06
Employees	466	395	312	-21.01
Non-industrial group	217	116	32	-72.41

Fig. 13. Total Staff by Age Groups (Payroll), 2013

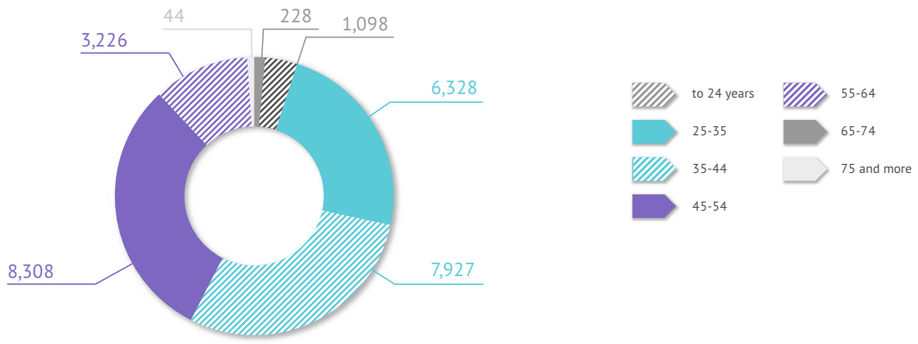
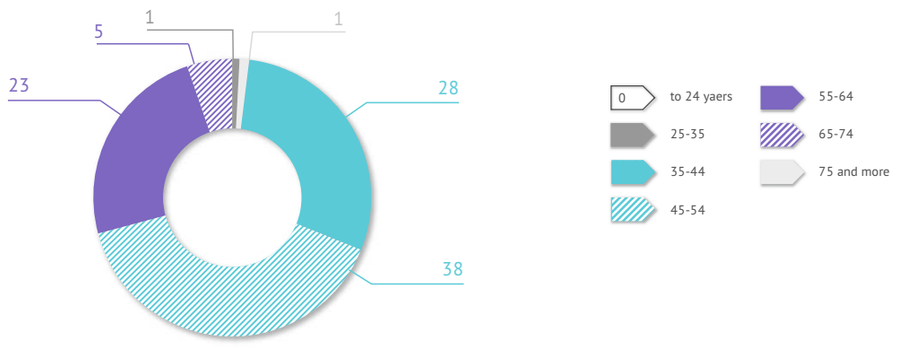


Fig. 14. Top Executives by Age (payroll), 2013



Average age of TVEL FC employees — 43. Employees aged up to 35 comprise 25% of total staff.

Recruitment of prospective young people is one of the top priorities in personnel policy of the Fuel Company. By hiring young specialists, the Company intends to preserve and strengthen its position in the sphere of science and advanced technologies.

As part of its cooperation program with educational institutions engaged in personnel training, the Company signed agreements with sector-specific higher educational institutions (five of which form a consortium of base schools of ROSATOM State Corporation) and vocational secondary schools: NRNU MEPHI and its branches; UrFU, MISiS, NI TPU, NTK, VlGU, M.V. Lomonosov MSU FCT, D.I. Mendeleev UCTR, MATI — Russian State Technological University, etc.

The cooperation is implemented by way of:

- special career events at the higher educational institutions (career days, vacancy fairs, meetings with Company's CEOs, contests, qualifications, etc.);
- organizing internship of the students;
- involvement of employees of enterprises comprising TVEL FC in operation of the state examination commission at the educational institutions.

In 2013, enterprises of the Fuel Company provided internship to 969 students of the higher educational institutions and vocational secondary schools. In 2014, the Company expects 850 students to take their internship courses at its enterprises.

Over the period of report, the Company hired 129 graduates of the higher educational institutions and vocational secondary schools, 14 of which took target preparation classes for employment by TVEL FC.

To promote career guidance, school students a taken on regular (twice a year) tours at the enterprises of the Fuel Company where they meet young specialists and take part in a variety of contests (intellectual environmental game "First Step Into a Nuclear Project", etc.).

To promote the development of the graduates training, recruitment and hiring system, the Company focuses on:

- implementation of talent hunt system;
- development and implementation of the higher and secondary vocational education programs (in cooperation with educational institutions);
- development of requirements profile for the graduates of vocational secondary schools;
- development and implementation of secondary vocational education programs in compliance with requirements of high-tech manufacturers under the dual training model (in cooperation with vocational secondary schools).

In 2013, the Company developed a scout system that covers top graduates of educational institutions and helps recruit talented graduates who qualify under the requirements profile (average score ⩾ 4.2; ability test ⩾ 35; four competencies rate ⩾ 4.5).

The additional criteria include:

- successful completion of internship by the graduate at the enterprise of TVEL FC (formal evaluation required);
- the CV should mention the graduate's participation in student conferences and contests, prior successful projects, publications in professional mass media (proper documentation required).

For example, JSC SGChE in cooperation with STI NRNU MEPHI implements Joint Program for implementation of cooperation agreement by and among TVEL JSC and NRNU MEPHI in the sphere of education, science and personnel training.

This Program makes provisions for:

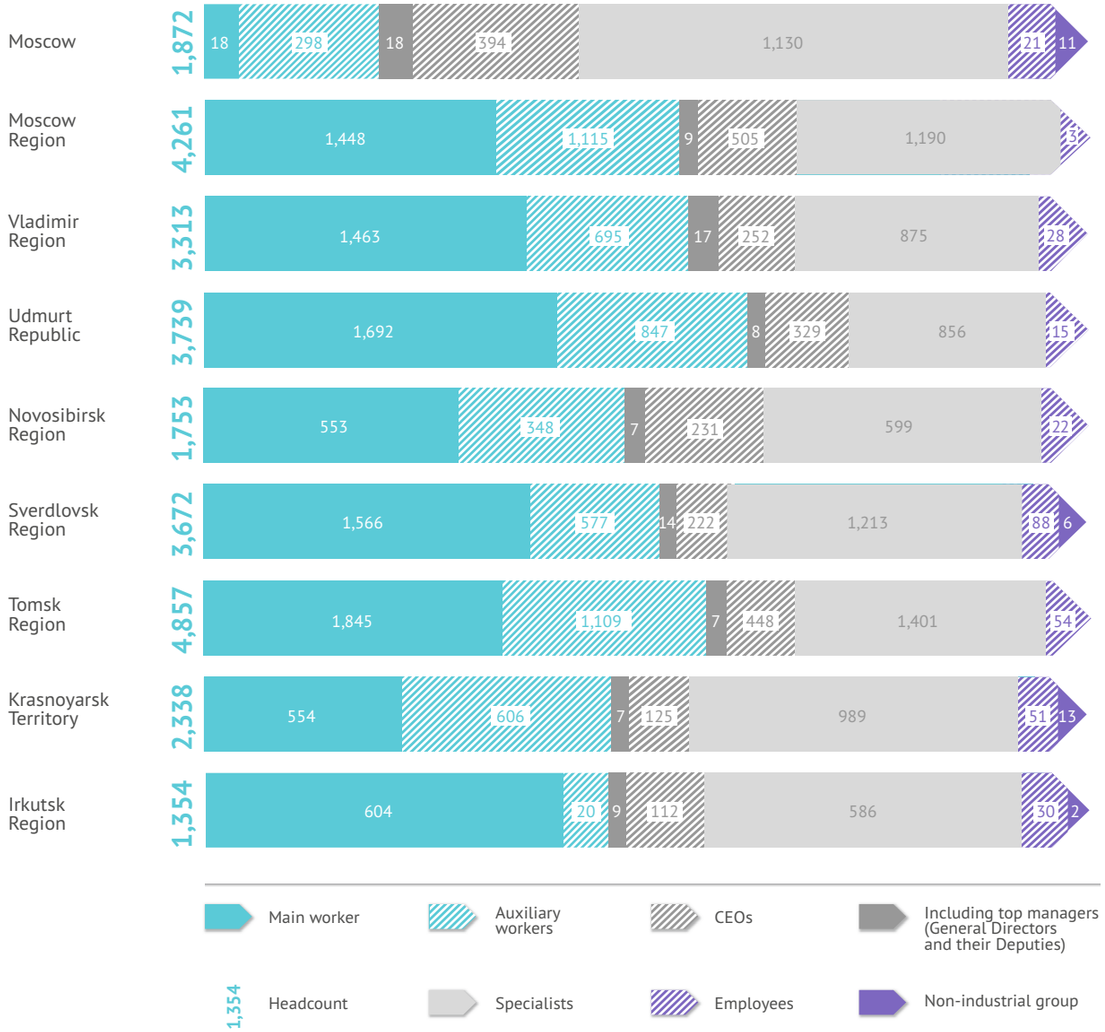
- joint development and implementation of higher vocational training programs to prepare professionals in prospective business of JSC SGChE, specifically — train specialists competent in X-ray diffraction and fluorescence analysis and electronic microscopy;

- open Radiochemistry Department at JSC SGChE to promote practical training of students under the program "Chemical Materials Engineering in Modern Power Industry (specialization: Chemical Materials Engineering of NFC").

GRI G3.1: LA15

Approx. 1.1% of TVEL FC employees return from maternity leave every year (310 persons in 2013). The highest rate (approx. 2%) is observed at the Fuel Company's enterprises in Vladimir Region and Sverdlovsk Region, whereas the lowest (approx. 0.6%) rate is observed in the City of Moscow, Moscow Region, Tomsk Region and the Udmurt Republic. Over 90% of employees return from maternity leave to continue their work at the enterprises of TVEL FC.

Table 30. Workforce Size by Categories and Regions (persons, 2013)



TVEL FC mostly hires local residents to its enterprises and brings specialists from other regions of presence only if and when no properly qualified candidates to the vacancy are available at the local job market.

GRI G3.1: EC7

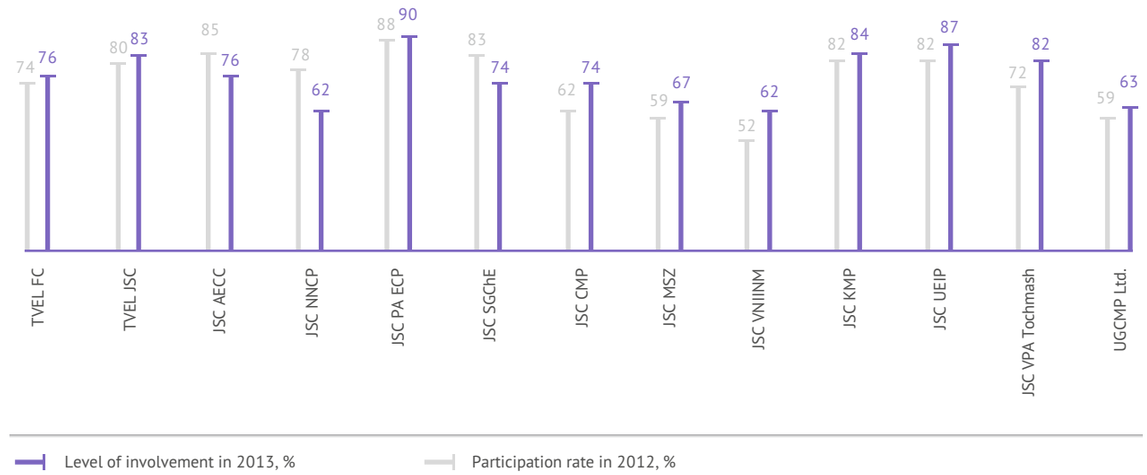
Fig. 15. Top Managers of TVEL FC Enterprises by Residence (2013)

GRI G3.1: LA13

Enhancement of Personnel Involvement

Personnel involvement, meaning the commitment of employees to the business and success of the Company, directly influences the performance and efficiency of business. Personnel Involvement Indicator is included in the KPI of the President of TVEL JSC.

Table 31. Involvement by Enterprises of TVEL FC According to the Studies Held in 2012-2013, %



The Company is actively working on enhancement of personnel involvement, i.e. providing incentive for the workers to grow from simply doing their duties outlined in their job description to improving their performance. To this effect, the Company uses the following tools:

- increasing the efficiency of incentive system (payment of individual bonuses for good team results, remuneration for suggestions regarding the improvements and for innovation proposals);
- annual assessment of workers, managers, specialists and employees under the RECORD methods, thereby ensuring transparency and fair assessment of contribution made by each member of the staff to overall income;
- involvement of workers in management of the enterprise (by making small groups);
- communication events with participation of general directors of the enterprises and managers of TVEL JSC in order to inform workers about key aspects of development of the industry/division/enterprise;
- forming the industry-specific personnel reserve: ROSATOM Capital, ROSATOM Assets, ROSATOM Talents. Training sessions for those who make it to the finals through qualification stages on three levels of the reserve;
- launch of the program of industry-specific nominations (Man of the Year) and printing of photographs of the nominees in the uniform industrial files dedicated to the study of involvement;
- improved organization of work processes, labor conditions, involving workers in improvement of labor conditions and labor safety, introduction (at some enterprises) of automated control system for better management of suggestions for improvements made by the workers;
- focus on development and training of workers, including involvement of the internal coaches;
- cultivation of the leaders of efficiency and changes (holding leadership forums, small group leadership development program, production management development program).

More details about the incentive system and personnel training and development programs, including personnel reserve, are set forth below.

Motivation and Remuneration of Labor

In 2013, the Company continued implementation of the industrial project "Harmonization of the Unified System of Labor Remuneration" (USLR), seeking to:

- balance out the labor productivity and salary growth rates;
- bring the integrated incentive in compliance with the actual professional status;
- conduct annual performance evaluation of at least 95% of employees of TVEL FC, including evaluation of workers in accordance with corporate procedure;
- unify salary structure and types of remuneration of labor with regard for requirements set forth in the industry-specific guidance documents.

Accomplishment of 2013:

- salary growth at the enterprises comprising the Fuel Company by 9% against the previous year thanks to the increase of personnel involvement and to implementation of USLR Harmonization Project;
- great results in unification of salary systems in the course of introduction of the Standard Salary Regulations with respect to workers of all enterprises comprising TVEL FC;
- introduction of a number of tools allowing to increase incentive and promote the environment of team competition, such as organization of small groups, handling the suggestions regarding the improvements and development of the incentive system on the basis of the results obtained.

GRI G3.1: LA14

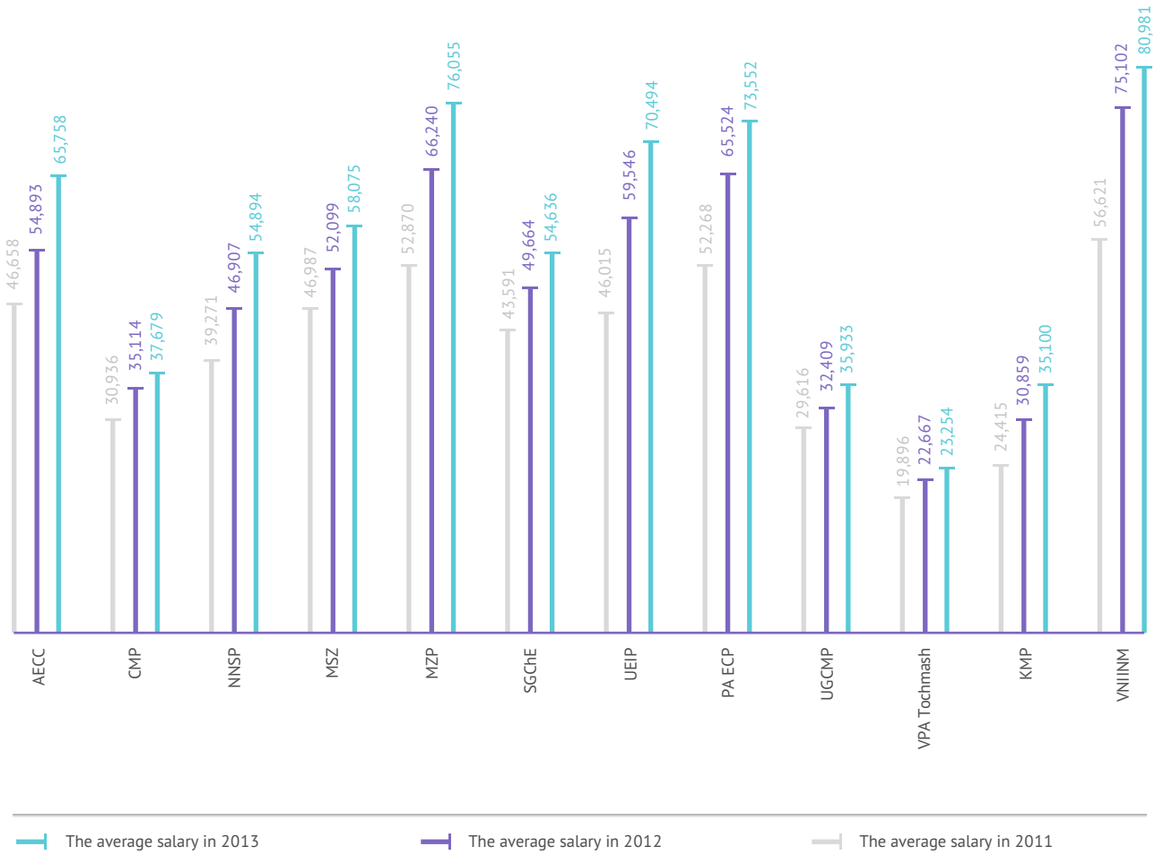
These tools had considerable economic effect and promoted the personnel involvement in the increase of efficiency: in 2013, workers submitted 40,200 suggestions for improvement, which is 2.5 times more than in 2012 (16,300 suggestions)*.

* For details see Chapter 4 Section "Productive Efficiency Management".

TVEL FC upholds the principle of equality and tolerates no gender discrimination: male and female workers and employees get the same salary, regardless of categories.

> In 2013, average monthly salary in the Fuel Company (excluding TVEL JSC) was RUB 54,444 (in scientific institutions – RUB 72,759), which is 9% (19.4%) more than the year before.

Fig. 16. Average Salary by Enterprises of TVEL FC, RUB



Ratio of standard entry level wage of enterprises comprising TVEL FC compared to local minimum wage at significant locations of operations is ~1.5. At the end of 2013, in some regions (Moscow, Sverdlovsk Region, Krasnoyarsk Territory, Irkutsk Region) this ratio varies from 2 to 3. TVEL FC Incentive and Salary Policy aims to maintain the salary at competitive level.

GRI G3.1: EC5

Table 32. Ratio Between the Average Salary in the Company and the Average level on the Job Market*

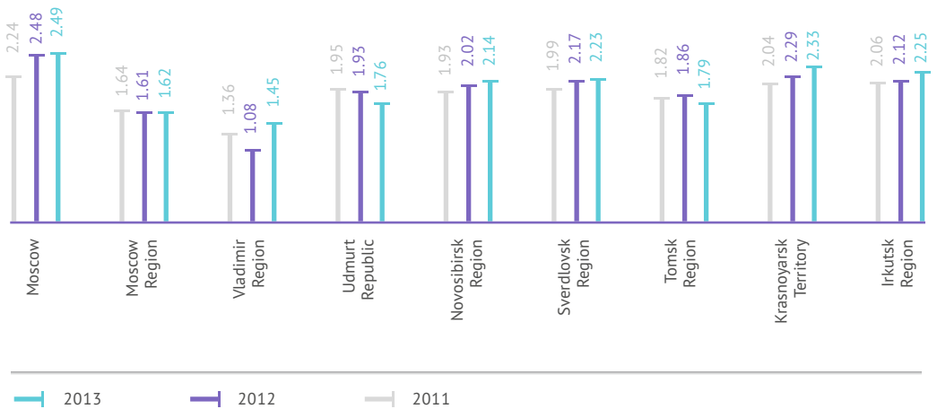
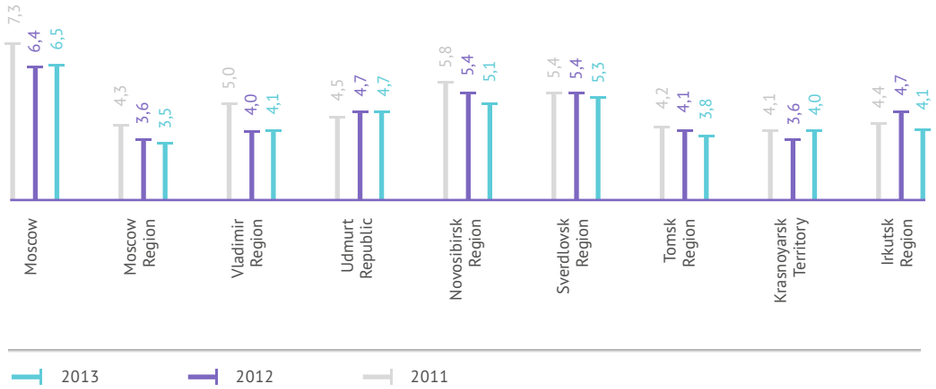


Table 33. Ratio Between the Average Salary of 10% of the Least Paid and 10% of the Most Paid Employees of the Enterprises**



Personnel Efficiency Assessment

All subsidiaries and affiliates of TVEL JSC in 2013 successfully introduced and operated the system of annual personnel efficiency assessment.

* With TVEL JSC being taken into account.

** Data source (Rosstat) changed in 2013. Formerly provided data for the period of 2011-2012 are adjusted to promote relevance of indicators.

Table 34. Components of the TVEL FC Annual Personnel Efficiency Assessment System

GRI G3.1: LA12

Indicator	Target group	Results of the period of report
RECORD assessment	Managers, specialists, employees (MSE)	Passed by 36.1% of the staff on payroll or 97.8% of the MSE (over 6,000 male and approx. 4,500 female), which is consistent with target values. The assessment covered all enterprises of TVEL FC. Following the assessment, the enterprises received recommendations regarding revision of individual incentives, training programs and listing the employees in personnel reserve.
Corporate Workers Assessment System – Skills and Personal Competencies Evaluation	Workers	Passed by 57% of the staff on payroll or 93.1% of the workers. Following the assessment, the enterprises received recommendations regarding revision of individual incentives.

About 6.9% were left beyond the scope of the assessment procedures in 2013. They were female workers on maternity leave, individuals whose work period in TVEL FC was less than 3 months, and workers subject to downsizing in the course of restructuring.

Every year the Fuel Company organizes professional contests where workers of most common trades compete for the title of “Best in Trade”. The contest involves electric and gas welders, turners, I&C mechanics, operators of condensate evaporation units, operators of computer engineering units, chemical studies laboratory assistants, etc.

Personnel Development and Training

Traditionally, personnel development and training is in the focus and one of top priorities of personnel policy of the Fuel Company.

Acting on the basis of Personnel Development and Training Provisions, the enterprises of TVEl FC regularly implement training programs to enhance competencies of their managers and ordinary workers.

In 2013, enterprises of TVEL FC provided training to 19,035 employees.

Average length of training in 2013 for each employee of the Company was 44 hours (33 hours in 2012). Training of workers usually takes the longest (83 hours).

GRI G3.1: LA10 LA11

Fig. 17. Average Length of Training in 2013 for each Employee (by gender)

The Fuel Company has special programs for development of skills and competencies of its managers, including (see table 35).

Total length of classes where the employees are taught policies and procedures related to human rights is 3 hours, during which the employees study:

GRI G3.1: HR3 HR8

- the internal code of conduct;
- provisions on trial period upon hiring;
- Order "On Organization and Conduct of Medical Examination of Employees";
- provisions on salaries and incentives;
- provision on voluntary health insurance;
- labor safety induction program.

This kind of training is mandatory for each employee, which means 100% coverage of the staff.

Development events that contribute to development of skills of the employees are implemented using the resources of internal coaches and the external providers of training services.

> TVEL FC founded the Institute of Internal Coaches in 2011. The Internal Coaches are the employees of the Fuel Company who provide hands-on training to their colleagues. To become an Internal Coach, the employee needs to pass the selection procedure, take additional training and be properly certified. By the end of 2013, 46 employees of TVEL FC qualified to be the Internal Coach.

Learning the principles and tools of the ROSATOM Production System is a separate field of training. Over 6,500 persons took this training in 2013 (19,529 in 2012). The smaller number is the result of the extensive training on the subject of RPS Philosophy and Tools provided to many employees on the stage of RPS introduction and improvement at the enterprises of the Fuel Company (2010-2012). In 2013, the training was provided only "upon request" as and when required by implementation of RPS projects.

Table 35. TVEL FC Skills and Competencies Development Programs

Program	Purpose	Trained in 2013
School of Leadership	Development of management competencies necessary for successful performance of managers in the industry	37 managers
Small Group Leadership Development	Strengthening the pool of small group leaders in terms of development of the leaders' competencies in accordance with the new role in organization	1,048 leaders of small groups with the help of 47 properly trained internal coaches
Production Management Development	Development of management skills and expertise necessary for successful performance in new conditions of production engineering resulting from the Project "Transformation of Production Relations"	810 managers of 10 enterprises (KMP OJSC, JSC VPA Tochmash, MSZ JSC, JSC CMP, JSC UEIP, Uralpribor Ltd., JSC SGChE, JSC NNCP, JSC PA ECP, JSC AECC)
Cost Engineering in Machine-Building and R&D	Master contemporary approaches to planning and implementation of engineering projects by key personnel of the Design and Engineering Department of TVEL FC	31 workers
Project management in Fuel Compan	Promotion of design-specificproject approach within the Fuel Company. The Program is based on the model of project manager's skills and expertise that is consistent with the international standard of PMBOK (Project Management Body of Knowledge)	30 project managers. The bulk of training is scheduled for 2014
Leadership forums Ideas that Change the World	Engaging the collective intellectual capital of engineering leaders of the Fuel Company in solving the problems of the enterprises to attain competitive supremacy	First forums took place in 2013 at KMP OJSC, JSC CMP, JSC NNCP. Thereafter, 516 suggestions for process improvements were accepted for execution

Formation and Development of Personnel Reserve and TVEL FC Continuity Plans

> TVEL FC pays great attention to development of personnel reserve and its CEOs.

Training in this sphere is built on the following principles:

- ties with business strategy and development of the industry;
- focus on the most advanced international leadership development practices;
- uniform industry management development system.

In 2013, the consolidated industry-specific personnel reserve was created in accordance with the rules unified for all enterprises and companies that comprise ROSATOM State Corporation.

In addition to the "ROSATOM Asset" program that covers the members of the consolidated industry reserve of management Level 1 and Level 2 (for details see the 2012 TVEL JSC Report), the "ROSATOM Capital" (a program focused on Level 3 and Level 4 managers) and the "ROSATOM Talents" (a program focused on group managers, specialists, engineers, leading experts and small group leaders who have a great potential for development of their managerial skills) started in 2013 when 64 and 77 workers of the Fuel Company joined the programs above respectively.

The consolidated industry-specific personnel reserve was formed on the basis of comprehensive assessment of candidates, including their performance evaluation (RECORD), ability testing and assessment of management potential.

Members of the consolidated industry-specific personnel reserve are covered by corporate development programs that facilitate rapid growth of management competencies that complement the other personnel training and development programs existing in the Fuel Company:

- program "ROSATOM Asset": training — 2 years (2013 — modules "Leadership and Efficient Management", "Change Management", "Corporate Resources Management" and "Involvement of Subordinates");
- program "ROSATOM Capital": training — 1.5 years (2013 — module "Change Management"; reservists were engaged in project activities and topical conferences);
- program "ROSATOM Talents": training — 1 year (the program is scheduled to start in 2014).

World class professors are invited to participate as tutors and experts in the programs of industry-specific personnel reserve development; the programs are practical and envisage application of the latest practices of international leaders by the enterprises of the industry in question, which is an integral part of the role of the future managers.

Project "Harmonization of Management Structures" helped the enterprises of the Fuel Company profoundly change their organizational structure of management. For example, these enterprises adopted the organization structure comprising of four or five levels (formerly, they had up to nine levels), thereby reducing the executive staff by an average of 30% (1,000 persons). In addition, the number of Level 2 positions (directly reporting to the General Director) was reduced to 12 and the duties were re-distributed among the function-specific managers.

In all, enterprises of the Fuel Company reviewed in 2013 the succession plans with respect to all Level 2 executive positions to factor in the changes in organizational structure, executed the succession plans (short- and long-term) with respect to Level 3 executive positions and drafted individual development plans for the successors. The succession plans are made to promote personnel stability of the management system effective at the enterprises of TVEL FC and are primarily applicable to production and engineering managers.

Despite the considerable reduction of the number of administrative positions, the Fuel Company generates expert and project career paths to satisfy the need of its employees in professional growth and career development, as well as to maximize the efficient use of the workers' potential.

Table 36. TVEL FC Personnel Reserve and Succession Plans

Indicator	2011	2012	2013 Consolidated industry-specific personnel reserve*	2013 Succession plans**	2014-plan Consolidated industry-specific personnel reserve	2014 Succession plans
Employees comprising the personnel reserve	322	450	153	1,438	216	1,554
Employees comprising the personnel reserve who aspire for higher positions	322	450	153	215	216	233
Employees comprising the personnel reserve who made it to the higher position	236	238	26	113	34	139

Implementation of Social Programs

In addition to mandatory social guarantees, benefits and privileges envisaged by the labor laws, enterprises of TVEL FC have corporate social programs, such as:

- non-state pension provision;
- voluntary health and industrial injuries insurance;
- housing program;
- sanitary and resort treatment and recreation of employees and their children;
- provision of meals to employees;

* Employees specifically selected for training and further appointment to key positions who have a potential formanagement activities and sufficient professional expertise. The personnel reserve consists from three levels: ROSATOM Asste, ROSATOM Capital and ROSATOM Talents.

** Document that specifies the position (reserved) to which the employee aspires and the time when the said employee is expected to be ready for the transfer. Following the inclusion in the succession plan, the employee may be assigned a status of the reservist of the Consolidated Industry-Specific Personnel Reserve after the appropriate qualification procedure. The successors are mostly represented by the members of the Consolidated Industry-Specific Personnel Reserve.

- assistance to veterans and pensioners of the industry;
- organization of cultural and sports events, etc.

> TVEL FC social programs represent a strong motivating factor. According to the involvement studies, up to 55% of employees find their social package satisfactory.

Total amount spent by TVEL FC on its social programs in 2013 was RUB 1,612.1 mln (RUB 53,700 per worker).

GRI G3.1: HR5

Interaction with Labour Unions

Primary cells of labour unions function at every enterprise of TVEL FC. Each worker of the Fuel Company may join a labour union that would represent its interests during the collective negotiations.

> Management of ROSATOM State Corporation and TVEL FC appreciate it when their workers join labour unions.

Some enterprises have labour unions that unite up to 98% of their workers. The Fuel Company interacts with labour unions under the social partnership program. The CEOs acknowledge the important role of labour union in implementation of corporate social programs and in enhancement of employee awareness. Social stability at the enterprises and the places of presence of the Fuel Company is the result of cooperation between TVEL JSC and Labour Union of Nuclear Energy and Industry of Russia (RPRAEP), enterprises of the Fuel Company and primary labour union organizations, veteran councils and other workers' associations.

Table 37. Implementation of Corporate Social Programs in 2013

Corporate social program	Funds allocated under the program in 2013, mln RUB	Basic facts
Voluntary health insurance (VHI)	188	100% of TVEL FC employees are covered by the VHI policy. Maximum amount under the VHI policy in 2014-2015 is increased by 15%
Personal accident and sickness insurance	11.8	90% of TVEL FC employees are covered by personal accident and sickness insurance
Sanitary and resort treatment, recreation of children	185.8	4,262 employees (2,992 of whom were working in harmful conditions) got vouchers to sanitary and rehabilitation resorts in 2013. Maximum amount of each voucher in 2014 was increased by 10% — to RUB 50,400 for a 21-days leave
Assistance in improvement of housing conditions	59.9	548 employees used the program to improve their housing conditions in 2013. 489 of them were young workers
Benefits	52.2	6,334 workers got their benefits in 2013. Average benefit amount – RUB 8,250. The amount of benefit does not depend on the official position. Types and criteria of benefit provision are unified
Sports and cultural events	141.2	Over 350 corporate competitions took place at the enterprises of TVEL FC in 2013. Total number of participants – over 37,000 workers and members of their families
Assistance to non-working pensioners	618.6	The number of non-working pensioners supported by the Fuel Company – over 42,000 persons. Average amount paid as assistance to a pensioner – RUB 10,000 a year. Vouchers to rehabilitation institutions were provided to 6,610 non-working pensioners. In 2013, the Fuel Company introduced a new corporate program that regulates provision of support to non-working pensioners in accordance with the social policy of ROSATOM State Corporation. Under the new program, privileges and guarantees are contingent on the status assigned to each veteran (distinguished veteran, honorable veteran and veteran w/o status). The status is assigned on the basis of individual merits and the length of service in the industry. Non-working pensioners of TVEL FC got their status in 2013. The new corporate program helped structure the benefits, including the amount and regularity thereof. The biggest accomplishment of the reform includes the increase of the minimum amount of the benefit, improvement of targeting ad provision of assistance to single and low-income non-working pensioners at the times of hardship
Non-state pension ("the NPO")	148.2	By the end of 2013, around 17.9% of TVEL FC workers are involved in the non-state pension program. The highest rates of involvement are achieved at JSC CMP (35.3%), MSZ JSC (29.5%), JSC PA ECP (25.9%) and JSC UEIP (23.3%). The Fuel Company pays pension tax at the rates set by local regulations (up to 1 to 7, but no more than RUB 4,000 a month) in addition to personal deposits of the worker. Pension accruals under the NPO program are accumulated mostly at the Non-state Pension Fund Atomgarant. According to the 2012 Statement, pension accruals accumulated in the above-mentioned fund are covered by the appropriate provisions 1.5+ times. The fund is rated A++ (stable) by the Expert RA Rating Agency

GRI G3.1: EC3

Labor Protection and Industrial Safety

TVEL JSC understands that engineering processes vital for manufacturing of products shall not have negative impact on the health of personnel and shall rather make provisions for keeping the risks at acceptable level with respect to every operation it carries out.

Main strategic goal of TVEL JSC in the sphere of health and labor safety is to minimize negative impact on human health.

Excerpt from the TVEL JSC Health and Labor Protection Policy

One of the biggest tasks of the TVEL JSC Department of Nuclear, Radiation and Industrial Safety and Environment is a package of measures to mitigate frequency of industrial injuries and occupational diseases, and to analyze industrial injuries that occur at the enterprises of the Company.

GRI G3.1: LA6 LA9

Labor protection measures are taken at the enterprises of the Fuel Company in accordance with the Industrial Agreement on Nuclear Energy, Industry and Science for 2012-2014 and collective agreements of the enterprises.

For purposes of operating monitoring of labor protection under the Three-Stage Administrative and Public Control System, the enterprises have developed the appropriate schedules for:

- main specialists services to inspect compliance with labor protection, radiation, industrial and fire regulations;
- main specialist commission to hold conferences dedicated to the audit of labor protection, radiation, industrial and fire safety;
- labor protection engineers to inspect the departments.

By taking preventive measures in the sphere of labor protection, in 2013 the Company continued the downward industrial injuries tendency. The number of injured at work went down by 46% (15 in 2012 and 8 in 2013).

At the 17 enterprises of TVEL FC 8 persons were injured in 2013, two of whom happened to be heavily injured. No emergencies at hazardous facilities or mass accidents occurred over the period of report.

Most industrial injuries occur due to organizational faults, such as failure of managers and specialists to perform their duties in the sphere of labor protection and/or failure of the injured persons to observe labor and production discipline, labor protection rules and regulations.

GRI G3.1: LA7

Fig. 18. Injured Persons at the Enterprises of TVEL FC

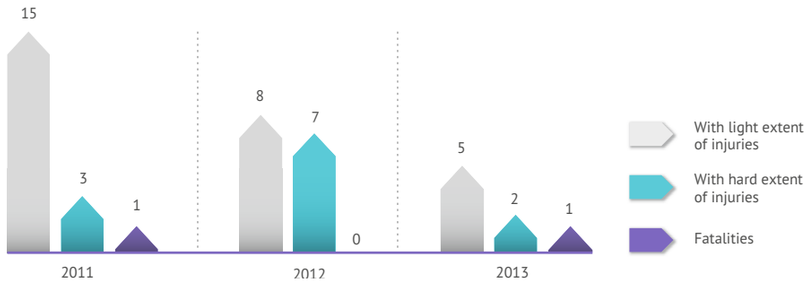


Fig. 19. Number of occupational diseases, FC TVEL*

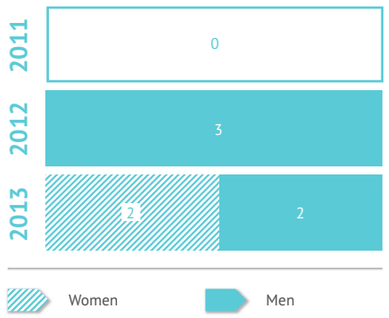


Fig. 20. Industrial Injuries Frequency Rate (IIFR) on the TVEL FC Enterprises**

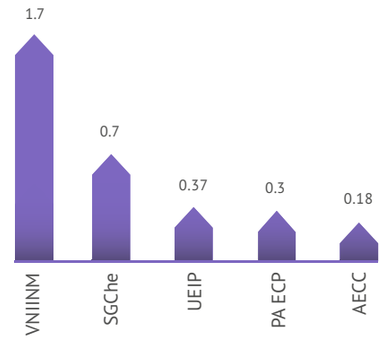


Fig. 21. Average Industrial Injuries Frequency Rate (IIFR), TVEL FC **

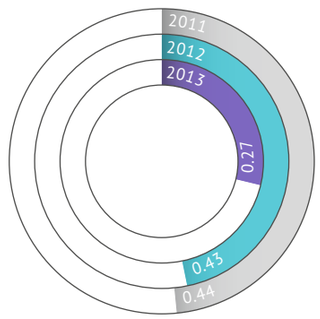
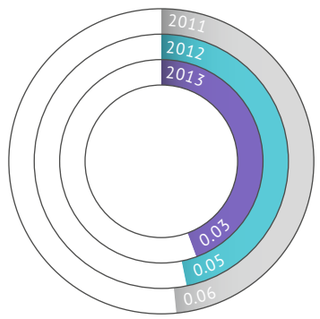


Fig. 22. Injury Rate (IR), TVEL FC ***



* Two cases of acute occupational disease were detected among the employees of Fuel Company in 2013: local radiation injuries to hands of NDT inspectors of JSC VPA Tochmash (caused by their single failure to observe safety regulations). Two more former JSC NNCP workers were found to have chronic occupational diseases.

** Accidents per 1,000 employees a year.

*** IR = total number of injuries / total hours worked) x 200,000, where 200,000 — hours worked by 100 employees over a year.

Fig. 23. TVEL FC Enterprises Injury rate (IR) *

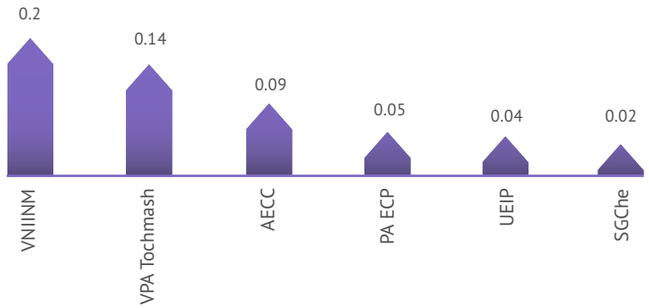


Fig. 24. Occupational diseases rate (ODR), TVEL FC**

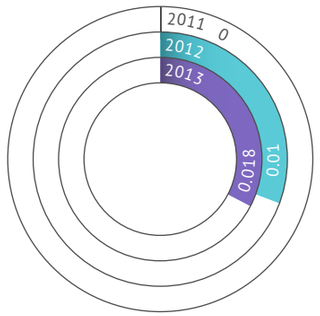


Fig. 25. Lost Day Rate (LDR), TVEL FC***

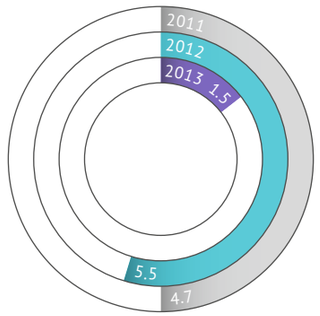


Fig. 26. Rate of Industrial Injuries by Gender

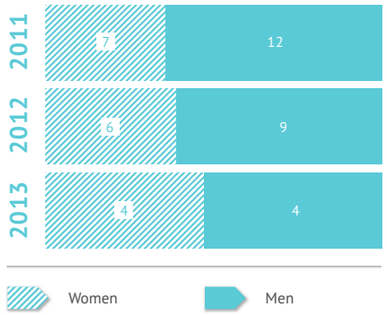
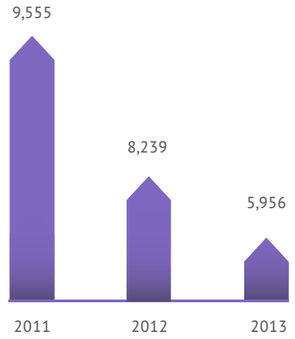


Fig. 27. Absentee Rate (AR), TVEL FC****



* IR = (total number of injuries / total hours worked) x 200,000, where 200,000 – hours worked by 100 employees over a year.

** ODR = (total occupational diseases) / total hours worked over the same period) x200,000.

*** LDR = (total days lost due to injuries / total hours worked over the same period) x200,000. Estimates of "lost days" and "days of absence" are based on the number of business days (as opposed to calendar days). Tally of the "lost days" begins on the date of injury (date of the sick leave certificate). Lost days rate: 0.92 for male and 0.53 for female employees.

**** AR = (total days lost (absence due to disability of any nature) / total days worked over the same period) x 200,000.

Registration of accidents and generation of reports is carried out on the basis of the following regulatory documents:

- Labor Code of the Russian Federation (Article 227-231) (No. 197-FZ dated December 30, 2001);
- Provisions on Specifics of Investigation of Industrial Accidents in Certain Sectors and Organizations (Appendix No. 2 to Decree of the Ministry of Labor and Social Development of the Russian Federation No. 73 dated November 24, 2002).

> We would point out an important event that occurred after the date of report — on February 11, 2014, ROSATOM State Corporation approved the schedule of actions to promote safety and prevent injuries during the construction, repair, reconstruction and modernization of facilities that use nuclear power.

The schedule further outlines requirements to the standard contract form that should contain provisions concerning verification of qualification and training of the workers recently hired by the contractor, prohibiting the contractor to hire personnel under any outstaffing agreements, and making sure that job description of CEOs responsible for organization of capital construction includes control functions of and compliance with labor protection regulations by the contractors. Implementation is scheduled for July 2014.

> In the course of restructuring, all major divisions that have technologically advanced production lines with high exposure to injuries and accidents shall remain within the structure of the Fuel Company.

GRI G3.1: PR2

No breach of safety parameters or limits of the effective and equivalent doses set by the nuclear and radiation safety regulations, and no violations that may be construed as accidents and emergencies under the INES were registered at the enterprises of the Company in 2013.

All production enterprises of the Fuel Company operate within the approved effective dose limits applicable to the personnel, no Group A personnel is available (individuals exposed to the effective dose of 100+ mSv over* a period of five consecutive years, or effective dose of 50+mSv during any one year.

Maximum dose received in 2013 at: JSC SGChE — 19.0 mSv; JSC CMP — 12.1 mSv; JSC NNCP — 10.98 mSv; MSZ JSC — 9.33 mSv.

* The following limits of the efficient dose are set in accordance with Radiation Safety Standards 99/2009: group A personnel - 20 mSv a year (on the average) over any 5 consecutive years, but no more than 50 mSv a year; population – 1 mSv a year (on the average) over any 5 consecutive years, but no more than 5 mSv a year.

Fig. 28. Average Annual Effective Dose, mSv

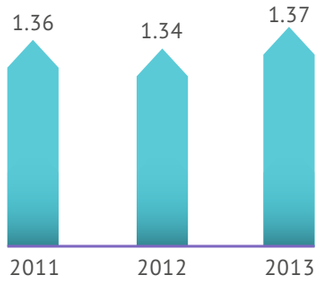


Fig. 29. Maximum Effective Dose for Personnel, mSv

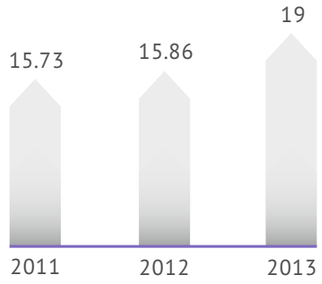
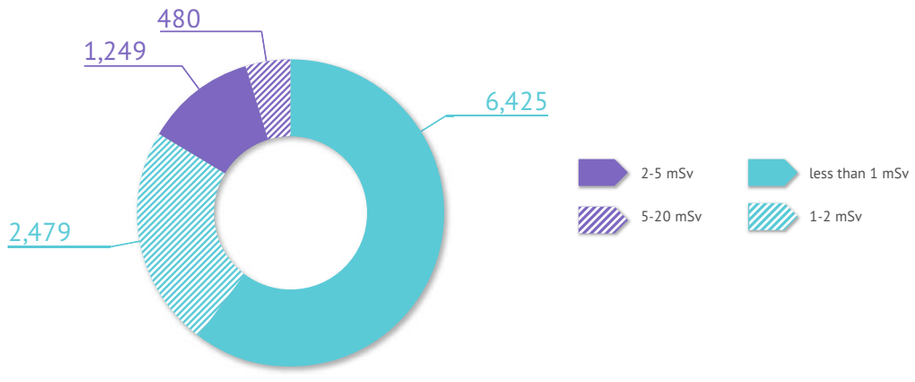


Table 38. Group A Personnel Distribution by Individual Irradiation Dose in 2013, %

Indicator		2011	2012	2013
Group A Personnel Distribution by Individual Dose of Radiation, %	up to 1 mSv	58.11	58.62	60.43
	1-2 mSv	25.18	25.23	23.31
	2-5 mSv	12.65	12.24	11.75
	5-20 mSv	4.06	3.91	4.51

Fig. 30. Group A Personnel Distribution by Individual Irradiation Dose in 2013, persons



In 2013, the Department of Nuclear, Radiation, Industrial and Environmental Safety together with the Inspectorate for Control of Safety of Nuclear- and Radiation Hazard Facilities inspected 17 sites, including 2 unscheduled inspections by the orders of the TVEL JSC management. The inspections detected 549 violations (774 in 2012), 35% of which were related to labor protection issues; 30% – industrial safety; 13% – radiation safety; 5% – environmental safety; 2% – fire safety; 1% – nuclear safety; and 14% – other violations.

For purposes of prevention and mitigation of the impact of hazardous and harmful production factors during the operations in hazardous and harmful conditions, the workers get special and properly certified clothing, footwear and individual protection means free of charge. Average cost of individual protection means per each worker exposed to hazardous or harmful labor conditions in 2013 was RUB 10,800 (against RUB 9,000 per person in 2012).

In accordance with provisions of federal laws, TVEL FCE organized regular medical examination of its workers who are involved in performance of operations with hazardous and harmful factors. Workers involved in performance of operations in harmful conditions are entitled to privileges and bonuses in accordance with applicable laws of the Russian Federation and the "List of Occupations and Positions of Workers and MSE Entitled to the Early Retirement and Benefits for Working in Unfavorable Labor Conditions", including: medical and preventive meals, compensations, extra leaves, etc. Enterprises of the Fuel Company implement programs of voluntary health insurance, accidents and sickness insurance, and health resort treatment*.

Industrial sites of the enterprises of company are subject to regular control of the contents of harmful chemicals in waste water, exhaust from ventilation systems, radiation and chemical status monitoring, organization and performance of all kinds of supervision in accordance with Production Control Programs.

Certification of work places at the enterprises of TVEL FC serves to promote the assessment of conditions and labor safety at the said work places, establish the extent of deviation from parameters of the production environment and work process**, and results thereof serve as the basis for scheduling the arrangements for the improvement of labor conditions.

All enterprises provide regular training to their workers on the topic of labor protection in accordance with GOST 12.0.004-90 and fire safety in accordance with Federal Law No. 69-FZ – "On Fire Safety", as well as every kind of briefing and knowledge assessment with respect to the abovementioned spheres. The Company takes preventive measures to mitigate industrial injuries and occupational illness.

In 2013, each employee of TVEL FC involved in functioning and maintenance of nuclear and radiation-hazard facilities took, on the average, 54.24 hours of training in standards of nuclear and radiation safety (NRS).

Table 39. Training of Employees Involved in Functioning and Maintenance of Nuclear and Radiation-Hazard Facilities in NRS Standards at the Enterprises of TVEL FC in 2013

Enterprise	Total hours of training	Average hours per employee
TVEL JSC	184	36.8
JSC VNIINM	512	64
KMP OJSC	360	72
JSC SGChE	8,105	67
JSC NNCP	1,816	65
JSC CMP	920	61
JSC PA ECP	6,064	70.5
MSZ JSC	1,848	71.7

* For details see Chapter 4 "Implementation of Social Programs Section Human Capital".

** Starting from 2014 – special assessment of labor conditions.

Table 39. Training of Employees Involved in Functioning and Maintenance of Nuclear and Radiation-Hazard Facilities in NRS Standards at the Enterprises of TVEL FC in 2013

Enterprise	Total hours of training	Average hours per employee
NRDC LLC	819	41
Centrotech-SPb	1,512	72
JSC AECC	1,328	69.9
JSC UEIP	2,847	23.5
Uralpribor Ltd.	105	5.5
EDB-Nizhniy Novgorod	120	40
Total in TVEL FC	26,540	54.28

The Company spent grand total of RUB 2.05 bln (RUB 68,000 per each employee) on labor protection arrangements in 2013.

Environmental Impact (Natural Capital)

Ecological Policy

> TVEL FC in its environmental activities is committed to promotion of environmental, nuclear and radiation safety.

> TVEL JSC acknowledges that the package of engineering processes contributing to the production of items, including the use of nuclear, radioactive and other dangerous materials therein, shall not cause negative impact on environment and on human health.
>
> Main strategic goals in the sphere of environment include promotion of environmental safety that is vital to sustainable growth of TVEL JSC and its subsidiaries, and reduction of negative impact of production and the supplied products on environment to the minimum acceptable level.
>
> Excerpt from the TVEL JSC Environmental Policy

To improve the efficient environmental management, all enterprises of TVEL FC have organized divisions responsible for performance of operations in the sphere of environment protection.

Environmentally important enterprises of TVEL FC* issue annual public reports on environmental safety, to inform the stakeholders, partners, public, citizens and local self-government

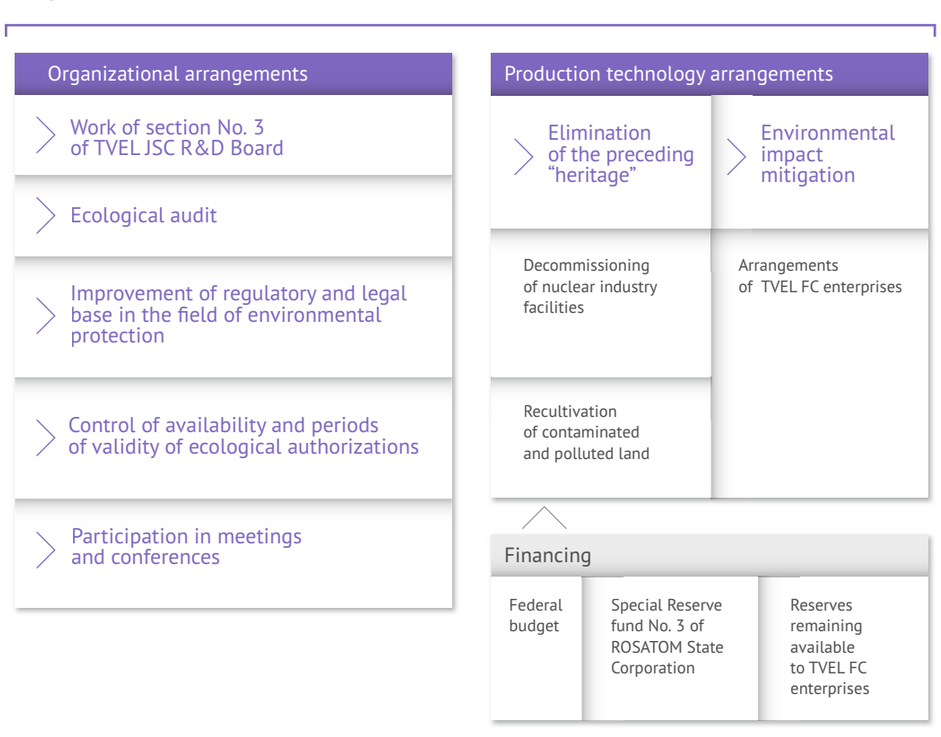
* Environmentally important enterprises of TVEL FC include: JSC AECC, JSC SGChE, JSC PA ECP, JSC UEIP, JSC NNCP, JSC CMP and MSZ JSC.

bodies, and publish them on Websites of the enterprises and ROSATOM State Corporation in Section "Customers and Partners" — "Environmental Management".

> TVEL JSC Environmental Policy is the key corporate document that regulates the activities of TVEL FC in the sphere of environment protection and safety. TVEL JSC Environmental Policy is harmonized with the Principles of Environmental Policy of ROSATOM State Corporation and its organizations.

Policy outlines the principles of Company's activity on the sphere of environment protection and serves as the basis for setting the environmental goals and generating the Environmental Policy of Fuel Company for 2010-2015, including organizational, production and engineering arrangements with respect to environment protection.

Fig. 31. TVEL FC Environmental Policy Implementation in 2013



In response to great attention paid to environment protection within the regions of presence, TVEL FC is continuously interacting with Stakeholders on the matters of environmental impact caused by the enterprises of the Company.

The following public hearings were held in 2013:

- May 16, 2013 — public hearings at JSC SGChE with discussion of the data for substantiation of the license to conduct activities involving the use of nuclear power (including records of the environmental impact assessment study (EIAS) for the establishment of a new conversion plant;
- May 24, 2013 (Angarsk) — public hearings dedicated to decommissioning followed by dismantling of vacant - buildings No. 802 and No. 804 on the site of JSC AECC;
- July 17, 2013 — public hearings at JSC SGChE with discussion of the data for substantiation of the license to conduct activities involving the use of nuclear power (including records of the EIAS) for the project "Creation of the Experimental Demonstration Complex Comprising of the Power Unit with Fast Reactor for SNF Conversion, Fabrication and Refabrication of Dense Fuel";
- August 6, 2013 — public hearings at JSC VNIINM with discussion of the data for substantiation of the license to conduct activities involving the use of nuclear power (including records of the EIAS) for decommissioning of the research Unit B.

GRI G3.1: EN26

In 2013, the enterprises of TVEL FC conducted the following operations in order to reduce environmental impact caused by their current production activities:

- JSC CMP completed reconstruction (reinforcement) of the existing tail storages No. 2 and No. 3 for safe storage of radioactive waste;
- JSC NNCP makes preparations for the construction of nuclear waste disposal facility for Shop 6;
- JSC SGChE completed reconstruction of Site 18 and Site 18a for deep storage of liquid radioactive waste;
- JSC AECC installed metering devices at hot water transfer coupling and service and industrial water supply pipelines;
- JSC UEIP optimized water disposal system thereby reducing the amount of waste water by 3 mln m^3;
- JSC PA ECP modernized one refrigeration machine, etc.

Environmental Impact

GRI G3.1: EN23

No emergencies and incidents resulting in negative environmental impact occurred in 2013 at the enterprises of the Fuel Company.

Use and Processing of Materials

The quantity of materials necessary for manufacture of products at TVEL FC enterprises is determined by the production program.

Enterprises of separation-sublimation complex are using uranium and synthetic materials. Enterprises of fabrication block are using raw materials represented by enriched uranium product obtained at the enterprises of separation-sublimation complex. Synthetic materials, ferrous and non-ferrous metals are basically used in manufacturing of gas centrifuges.

All raw materials used by the enterprises of TVEL FC are purchased. No renewable materials are used in production. For examples of the used materials see Table 40 below.

Table 40. Use of Materials in Main Production by TVEL FC Enterprises, tons

GRI G3.1: EN1

Material	2011	2012	2013	Enterprises
Sulfuric acid	2,150	1,604	1,092.1	JSC AECC
Nitric acid	1,856	1,308	850	MSZ JSC, JSC NNCP
Hydrochloric acid	326	360	360	JSC NNCP
Ferrous metals	1,082	1,706.5	1,311	Uralpribor Ltd., UGCMP Ltd., EDB-Nizhniy Novgorod; Centrotech-SPb
Non-ferrous metals	747.8	557.3	444.9	

Industrial and Consumer Waste Disposal

GRI G3.1: EN22

In 2013, the enterprises of TVEL FC reduced total amount (297.3 thousand tons) of industrial and consumer waste by 19.2%.

Table 41. Waste Generation and Recycling at the Enterprises of TVEL FC in 2011-2013

Enterprise	Waste generated, tons a year			Waste recycling, tons a year		
	2011	2012	2013	2011	2012	2013
JSC SGChE	310,337.3	296,677.9	235,608	62.4	18	88.3
JSC AECC	12,394	10,012.9	12,820.8	52	188.1	110.9
Uralpribor Ltd.	8,325.1	9,138.3	9,445.1	1.4	1	0.7
JSC PA ECP	4,798.6	15,949.8	9,031.6	28.2	2	0
JSC CMP	20,732.5	10,635	6,501	3,394	2,739.3	3,608.3
MSZ JSC	5,588.3	5,139,2	6,311.6	848.6	1,640.9	1,541.7
JSC UEIP	8,249.1	5,401.5	4,445.2	311.2	556.8	119.1
KMP OJSC	4,644.6	3,867	4,376.1	0	0	0
JSC VPA Tochmash	3,471.1	2,732.6	2,475.2	137.8	83.2	29.5
JSC NNCP	780.6	910.2	1,021.7	0	0	0
UGCMP Ltd.	806.1	1,160.5	901.5	1.1	1.2	0.7
JSC VNIINM	465.7	564,8	528.3	0	0	0.6
JSC MZP	873	867.7	479.9	0	0	0
NRDC LLC	50.5	75.7	83.3	0	0	0
Centrotech-SPb	23.8	38.8	39.1	0	0	0

Table 41. Waste Generation and Recycling at the Enterprises of TVEL FC in 2011-2013

Enterprise	Waste generated, tons a year			Waste recycling, tons a year		
	2011	2012	2013	2011	2012	2013
EDB-Nizhniy Novgorod	26.4	21.9	24.5	0	0	0
Other	2,553	4,866.5	3,201.3	0	0	0
Total	384,119.81	368,060.34	297,294.22	4,836.7	5,230.4	5,499.7

The bulk of waste (86.6%) was represented by Hazard Class 5 (virtually non-hazardous) waste, such as ash slag resulting from solid fuel burning at the TPPs. Ash slag are dumped by the TPP and the bulk of other waste is forwarded to specialized organizations.

Waste reduction was caused by:

- scrapping the JSC PA ECP equipment dismantled in 2012; by the early 2013, all that scrap was forwarded to the third parties;
- fewer amounts of coal burned at the TPP due to the warm winter of 2012-2013, hence the fewer amounts of ash.

Table 42. Waste Generated at the Enterprises of TVEL FC by Hazard Class, thousand tons

Description	2011	2012	2013	Δ 2013/2012, %
Total waste, including:	384.1	368.1	297.3	-19.2
Hazard Class I	0.07	0.07	0.03	-57.1
Hazard Class II	8	8.6	8.9	3.6
Hazard Class III	1.3	0.9	1.1	18.9
Hazard Class IV	31.8	30.3	29.8	-1.5
Hazard Class V	342.9	328.3	257.5	-21.6

In 2013, the volume of generation of wastes that are the most hazardous for the environment and population was decreased at the TVEL FC's enterprises by more than 2 times as compared to previous years.

GRI G3.1: EN2

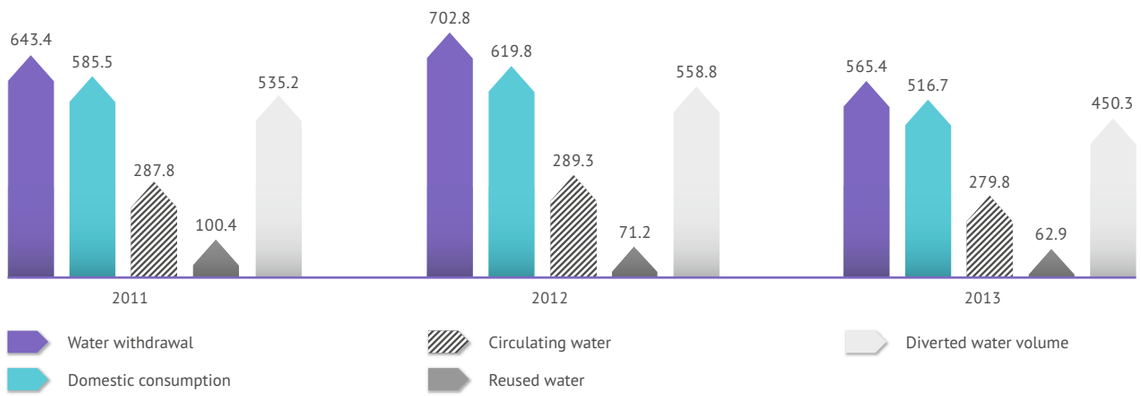
In 2013, 5.5 thousand tons of materials that are recycled or reused wastes (5.2 thousand tons in 2012, 4.8 thousand tons in 2011) were used. The use of wastes is mainly organized at enterprises of JSC CMP, MSZ JSC and JSC UEIP, which in 2013 used in their production 55.5%, 24.4% and 2.7% of their wastes respectively.

Water consumption and water disposal

In 2013, abstraction of by TVEL FC enterprises decreased by 19.5% as compared to the previous year and was 565.4 mln m³. The main source of water abstraction is natural sources from which 533.4 mln m³ were abstracted, 32 mln m³ were abstracted from public and other water supply systems. The organization's water abstraction has no material impact on natural water sources.

GRI G3.1: EN8 EN9

Fig. 32. Water Consumption in 2011-2013, mln m³ & water disposal in 2013, mln m³



The decrease in volumes of water abstraction by the Fuel Company is mainly caused by the following:

- a decrease in water abstraction by JSC AECC, JSC SGChE and JSC CMP due to reduction of the electric supply program of JSC Irkutskenergo, the HPP of JSC SGChE and the HPP of JSC CMP;
- a decrease in water consumption by water consumers of the Fuel Company's enterprises;
- restructurisation of the enterprises relating to the transfer of water abstraction facilities from the balance of the enterprises to the Fuel Company;
- reduction of water consumption for cooling equipment of the HPP of JSC CMP in connection with a reduction of the outside air temperature in quarter 2 and 3, as well as shifting two turbines to cooling condensers with return system water.

In 2013, the standard of water abstraction was set at 831.3 mln m³, the actual volume of abstraction was 68% of the set standard.

About 98% of consumed water is used by the TVEL FC's enterprises for cooling the equipment.

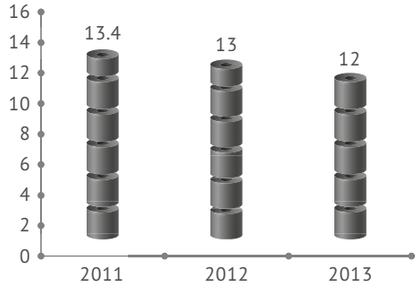
In 2013, the volume of return water was 279.8 mln m³. The share of return water of the total amount of abstracted water was 49.5%, the share of reused water of the total volume of abstracted water was 11.1%.

There have been small fluctuations in water consumption in return water supply systems at the TVEL FC's enterprises over the last few years.

In 2013, 450.3 mln m³ of water were disposed by the TVEL FC's enterprises, while the standard is 732.5 mln m³. All water was disposed into natural water bodies. The volume of water disposal directly depends on water consumption.

Fig. 33. Disposal of Pollutant Effluents by Enterprises of TVEL FC, mln m³

GRI G3.1: EN10



> In 2013, the volume of disposal of polluted wastewater by the TVEL FC's enterprises decreased by 8%.

The change in the volume of wastewater is directly related to reduction of water abstraction by the enterprises of the Fuel Company. In addition, activities aimed at improvement of water resources accounting are carried out at the enterprises, which makes it possible to track parameters of impact on the environment more accurately and plan activities for protection of water bodies more accurately. At present, collection of information on total volumes of planned and unplanned disposals of wastewater, as well as on the quality of wastewater is not carried out.

Pollutant emissions

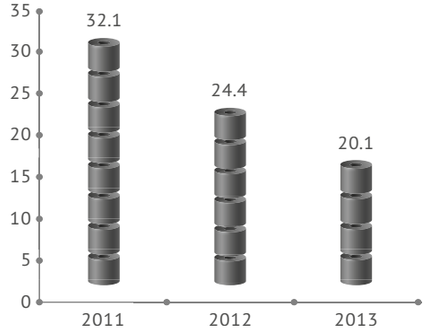
> In 2013, total pollutant emissions into the atmosphere by the TVEL FC's enterprises were 20.1 thousand tons (26% of the standard set by the TVEL FC for 2013), which is 18% less than in 2012.

GRI G3.1: EN21

The decrease in emissions was mainly caused by a decrease in the volume of fuel (coal and fuel oil) combusted at the HPPs of JSC SGChE, JSC CMP and JSC UEIP.

The difference between the set standards and actual emissions is explained by the fact that the main volume of permitted emissions is set for the HPPs based on their operation using hard fuel (coal) for the entire heating season. For purposes of minimization of the adverse impact, the TVEL FC resorts to using natural gas taking into account annual quotas of its consumption.

Fig. 34. Total Emission of Pollutants, thousand tons



GRI G3.1: EN19

> Emissions of ozone-depleting substances at the TVEL FC's enterprises decreased in 2013 by 4% and amounted to 267.1 tons*. The decrease in emissions was caused by modernization of equipment at the enterprises of the Fuel Company.

* From 2013, the gas Freon-13 has been included in calculation of the indicator. Indicators of past years have been recalculated using the new method.

Table 43. Total pollutant emissions by enterprises of the TVEL FC, thousand tons

Enterprise	2011	2012	2013	The share of emissions of the enterprise of the total volume of the FC's emissions in the reporting year, %
JSC SGChE	27.2888	21.0019	16.7084	83.0356
JSC CMP	3.0608	1.9829	1.9378	9.6302
JSC UEIP	1.0349	1.0158	0.9372	4.6575
JSC VPA Tochmash	0.2216	0.1654	0.1209	0.6006
JSC NNCP	0.0663	0.0666	0.0993	0.4935
JSC PA ECP	0.0408	0.0327	0.0367	0.1824
JSC AECC	0.0748	0.0226	0.0288	0.1434
KMP OJSC	0.0166	0.0205	0.0177	0.0881
MSZ JSC	0.2065	0.015	0.0179	0.0891
JSC VNIINM	0.0158	0.0142	0.0062	0.0307
JSC MZP	0.0031	0.0068	0.0063	0.0311
Uralpribor Ltd.	0.017	0.0563	0.1294	0.643
UGCMP Ltd.	0.0335	0.0276	0.0276	0.137
NRDC LLC	0.0198	0.0457	0.0457	0.2273
EDB-NN	0.0019	0.0019	0.0019	0.0092
Others	0.0003	0.0003	0.0003	0.0013
Total	32.1023	24.476	20.122	100

Table 44. Emissions of ozone-depleting substances with a breakdown by the TVEL FC's enterprises and types of substances, tons

Name of the substance	2011	2012	2013	Enterprises
freon-113	0.1	0	0.1	JSC AECC
	0.8	0.8	0	JSC SGChE
	6.9	6.9	4	JSC UEIP
freaon-12	6.6	6.6	6.6	JSC SGChE
	3.5	2.7	2.7	JSC PA ECP
	72.2	72.2	72.2	JSC CMP
freon-13	164.2	164.2	164.2	JSC CMP
freon-22	0.9	2.6	2.4	JSC AECC
	4.3	4.3	4.3	JSC SGChE
	17.6	17.6	9.8	JSC UEIP
	0.3	0.5	0.6	JSC PA ECP
	0.1	–	–	MSZ JSC
	–	0	0	UGCMP Ltd.

Table 44. Emissions of ozone-depleting substances with a breakdown by the TVEL FC's enterprises and types of substances, tons

Name of the substance	2011	2012	2013	Enterprises
Total	277,5	278,6	267,1	
In equivalent to CFHC-11	253,9	253,2	249,9	

Fig. 35. Emission of Ozone Depleting Substances, tons

GRI G3.1: EN20

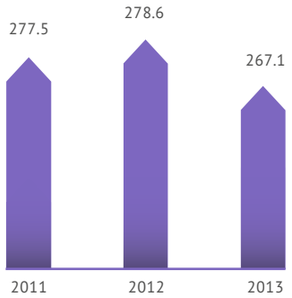
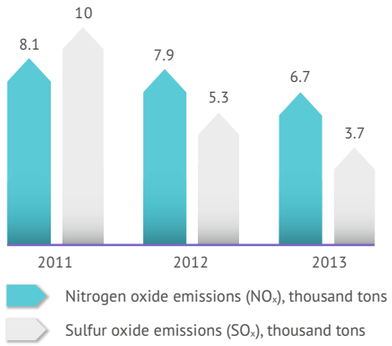


Fig. 36. Emission of Specific Pollutants, thousand tons*



Sulphur dioxide is emitted in great amounts during combustion of hard fuel at the HPPs of the Fuel Company's enterprises.

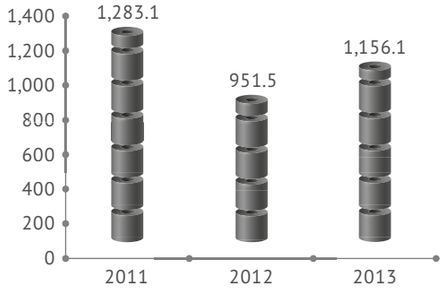
For the purpose of determining emissions of greenhouse gases, emissions of carbon oxide (CO) were taken into account, since carbon monoxide emitted into the atmosphere from man-made sources oxidizes to carbon dioxide. In 2013, carbon dioxide emissions of the TVEL FC's enterprises were 1,156.1 tons, which is 22% more than in 2012. The decrease in emissions occurred due to a check of systems of the HHPs of the Fuel Company's enterprises related to the use of backup fuel (coal and fuel oil). No accounting of indirect emissions of greenhouse gases is carried out at the TVEL FC's enterprises due to the absence of corresponding statutory requirements.

GRI G3.1: EN16

The bulk of emissions of greenhouse gases is caused by emissions of power production facilities (HPPs, boiler houses) and transport. Transportations related to activities of the TVEL FC's enterprises and workforce transportations have no material impact on the environment.

GRI G3.1: EN18 EN29

Fig. 37. Carbon Dioxide Emissions, tons**



Transportation of hazardous cargoes and special cargoes is carried out by transport of the enterprises or third parties pursuant to licenses and taking into account requirements to organization of transportations.

For the purpose of reduction of the adverse impact on the environment, measures for scheduled replacement of morally and physically obsolescent motor vehicles with modern ones that meet exhaust toxicity standards, as well as for replacement of motor vehicles that have gas engines with motor vehicles that have diesel engines have been taken.

In the operation of the rolling stock, routes, working hours have been constantly adjusted and optimized, kilometers traveled and the complement of vehicles in the motor vehicle fleet have been cut down, which has resulted in reduction of total kilometers traveled and, therefore, reduction of the total consumption of fuel and adverse impact on the environment.

* Determined using a computational method, concurrently an instrumental verification was performed.

** Determined using an estimative and computational method.

The relative impact of the Fuel Company's enterprises on the environment in the regions of presence

The TVEL FC's enterprises are located on lands that are owned by the enterprises, as well as on lands that are used on a leasehold basis and are owned by the Russian Federation. Industrial sites of the enterprises and adjacent areas are not areas which biodiversity is of high value, since they are not inhabited by animals and plants included in the IUCN Red List and the national list of protected species. In accordance with the RF Russian Federation nature protection laws, standards of admissible impact on the environment that ensure the quality of the environment are set for the TVEL FC's enterprises.

GRI G3.1: EN11 EN12 EN13 EN14 EN15

> Strict compliance by the Fuel Company's enterprises with the standards of admissible impact on the environment ensures the absence of threats to the existence of animals and plants which habitats are in the area adjacent to the TVEL FC's enterprises.

The impact of the enterprises on the environment of regions where they are located is in general less than 5% of the total impact of industry on the environment of corresponding regions. Figures of JSC PA ECP (4.8% of the total disposal of wastewater in Krasnoyarsk Territory), JSC CMP (4.3% of the total disposal in the Udmurt Republic), JSC AECC (3.3% of the total disposal in the Irkutsk Region) are close to the said impact. The 5% level has been exceeded by JSC SGChE (17.3% of total wastes, 65.6% of the total disposal of wastewater in the Tomsk Region). The share of the rest of the TVEL FC's enterprises in the total impact of economic activities on the environment of regions where they are located is insignificant. The TVEL FC's enterprises have no material impact on water bodies from which water abstraction is carried out. Water bodies that are sources of water supply of the Fuel Company's enterprises have not been recognized to be especially vulnerable and are not included in the Ramsar List*.

GRI G3.1: EN25

In the river Tom, at the water use area of JSC SGChE, there is diverse ichthyofauna: salmon, sturgeon, cisco, cyprinid fish and spiny-finned fish, of which taimen, spotted sculpin, Siberian sculpin are included in the Red Book of the Tomsk Region. The highest category of fishery use has been assigned to the water use area of JSC SGChE by the Tomsk branch of

* The list of wetlands made in accordance with Convention on wetlands of international importance especially as waterfowl habitat (1971).

Verkhneobrybvod Federal State Enterprise. To avoid adverse impact, in accordance with the regulatory and legal framework, the limit of water abstraction from this water body is set for the enterprise. Thus, water abstraction by JSC SGChE from the river Tom is limited and has no material adverse impact on this surface water body.

JSC AECC which is located in the Baikal natural area and is in the zone of atmospheric influence on the lake Baikal, understanding its responsibility for the preservation of the unique wildlife, monitors component of the natural environment as a part of industrial environmental control. No exceedence of controlled parameters within and beyond the sanitary protection zone has been detected in the reporting year.

GRI G3.1: EN30

Expenses of the TVEL FC related to the impact on the environment

In 2013, operating expenses of the TVEL FC's enterprises for environment protection were 2,213.3 mln RUB. These expenses were used for financing both technical and organizational measures.

Table 45. Expenses of the TVEL FC related to environment protection, mln RUB

Item of expenses	2011	2012	2013
Radiation safety assurance	*	973.1	1,059.2
Collection and purification of wastewater	1,313.8	427.5	335.1
Atmospheric air protection	342.9	209.1	187.7
Waste treatment	542.5	187.5	131.4
Land resources protection	12.5	83.2	28.4
Others	0.01	342.9	471.5
Total	2,211.7	2,223.3	2,213.3

The bulk of expenses are related to carrying out activities for environment radiation safety assurance (RUB 1,059.2 mln). Considerable expenses are also related to protection and rational use of water resources (RUB 335.1 mln) and atmospheric air protection (RUB 187.7 mln).

The bulk of environment protection expenses of the TVEL FC fall on JSC SGChE, JSC UEIP and JSC CMP.

> The total amount of payments for the adverse environmental impact decreased in 2013 by 10% as compared with the previous year and was RUB 24.9 mln

* A change in the structure of expenses for environment protection in 2012 as compared to the previous year was caused by implementation of a new expenses accounting methodology.

In 2013, there were no material fines or collections for compensation of damage caused by the environmental impact in respect of enterprises that are within the control circuit of the TVEL FC, no damage was inflicted on the environment.

GRI G3.1: EN28

Fig. 38. TVEL FC Environment Protection Costs Outlay in 2013

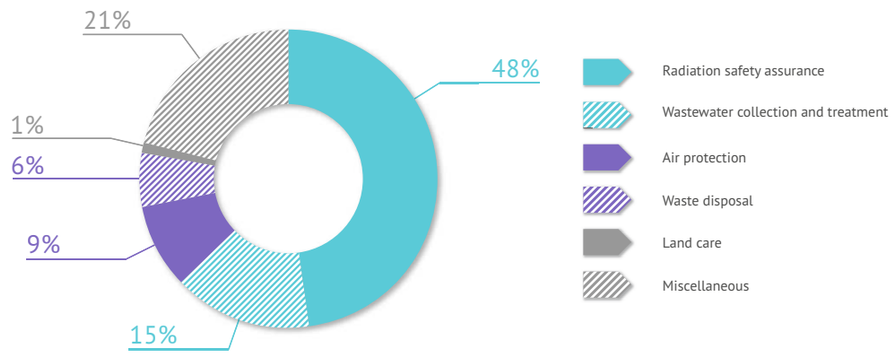


Fig. 39. Structure of Payments for Negative Environmental Impact in 2013

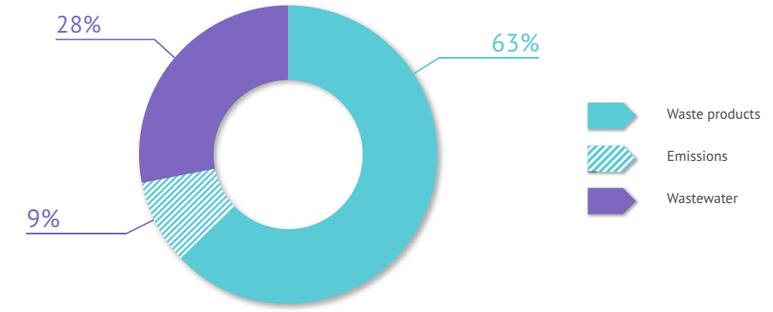


Table 46. Environmental expenses of TVEL FC, mln RUB

Enterprise	2011	2012	2013
JSC SGChE	634.7	665.5	913.5
JSC UEIP	739	751.7	702.8
JSC CMP	199.4	205.4	209
MSZ JSC	174.8	123.8	114.6
JSC NNCP	81.6	204.6	110
JSC AECC	228.1	55.9	43.5
JSC VNIINM	4.9	7.3	39.3
JSC PA ECP	89.2	136.8	26.7

Table 46. Environmental expenses of TVEL FC, mln RUB

Enterprise	2011	2012	2013
JSC VPA Tochmash	27.1	24.5	24
KMP OJSC	14.5	23	23
JSC MZP	1	4.5	2.7
Uralpribor Ltd.	12.8	15.3	0.9
NRDC LLC	0.1	0.1	0.3
UGCMP Ltd.	0.7	1.3	0
EDB-Nizhniy Novgorod	0.6	0	0
Others	3.1	3.8	3
Total	2,211.7	2,223.3	2,213.3

Nuclear and Radiation Safety

GRI G3.1: 1.2
SO9 SO10

Assurance of nuclear and radiation safety (NRS) of facilities of the Fuel Company's enterprises, prevention and exclusion of any possibility of inadmissible exposure of the personnel, population and environment to radiation are one of the priority types of the TVEL FC's activities.

At the Company's enterprises, systematic work for prevention and exclusion of radiation accidents, improvement of the stability of hazardous production facilities, training of personnel and special formations for accidents and emergencies.

Activities of the TVEL JSC and the Fuel Company's enterprises are carried out in accordance with the laws of the Russian Federation pertaining to the use of nuclear power taking into account IAEA requirements.

The main program documents providing for realization of activities in the area of NRS are the Federal Target Program "Nuclear and Radiation Safety Assurance For 2008 and For the Period Until 2015" (FTP NRS) and "Principles of the state policy in the area of assurance of the nuclear and radiation safety of the Russian Federation for the period until 2025".

In accordance with FTP NRS, carrying out of 38 activities at the Fuel Company's enterprises has been planned for the period until 2015 in the amount of RUB 12.4 bln, including RUB 9.5 bln at the expense of the federal budget and RUB 2.9 bln at the expense of other sources.

Liquidation of 56 nuclear and radiation hazardous sites (NRHS), putting into operation 1.71 thousand m^3 of capacities of radioactive wastes (RAW) repositories, putting 4.46 RAW power blocks into an environmentally safe state, as well as rehabilitation of 1,225.4 thousand m^2 of radiation contaminated areas are planned.

Over the period of 2008-2013, works under 22 activities were accomplished. The total volume of works amounted to RUB 7.0 bln, including RUB 4.6 bln at the expense of the federal budget and RUB 2.6 bln at the expense of other sources. 46 NRHS were liquidated, 1.71 thousand m^3 of capacities of RAW repositories were put into operation, 2.74 RAW power blocks were put into an environmentally safe state, and 55,28 thousand m^2 of radiation contaminated areas were rehabilitated.

Fig. 40. TVEL FC Nuclear and Radiation Safety Principles

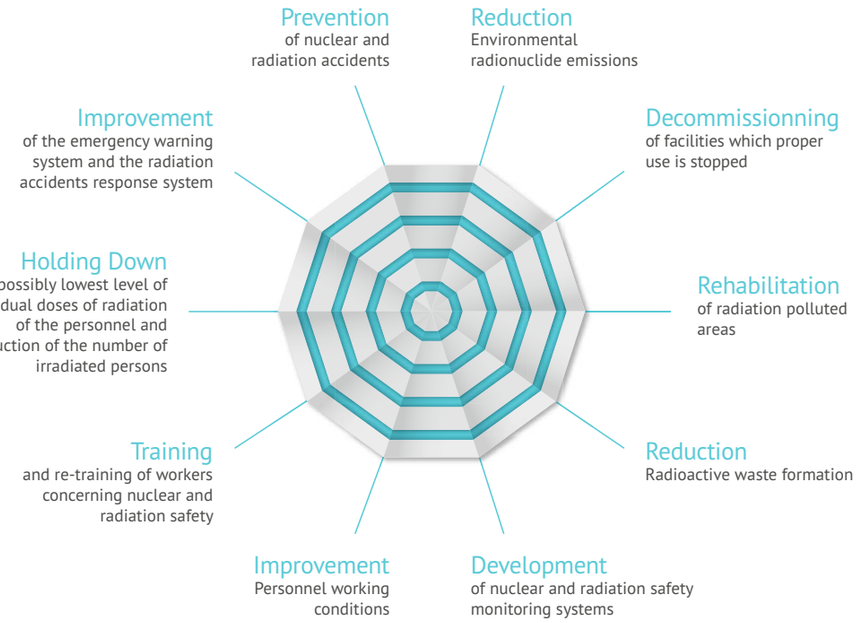


Table 47. Accomplishment of activities under the FTP "Nuclear and Radiation Safety Assurance For 2008 and For the Period Until 2015" at the sites of the Fuel Company's enterprises at the expense of the federal budget

Enterprise	Volume of financing, mln RUB		
	2012	2013	2014 (plan)
JSC SGChE	818.2	783.5	1,171.7
JSC CMP	27.8	11.1	144
JSC NNCP	30	27.2	24.8
JSC VNIINM	0	300	200
Total	876	1,121.8	1,540.5

GRI G3.1: EC4

In 2013, works under the following 3 activities were accomplished:

- s. 32 of the FTP "Reconstruction of sites 18 and 18a in connection with prolongation of the operational lifetime of deep liquid radioactive waste repositories of JSC SGChE";
- s. 157 of the FTP "Deep burial of liquid radioactive wastes with an increased content of the solid phase using the hydraulic fracturing method at JSC SGChE;
- s. 217 of the FTP "Reconstruction (reinforcement) of operational tailing dumps 2 and 3 for safe storage of RAW at JSC CMP".

Works under the rest of the activities are still in progress.
In 2013, at the expense of special reserve fund 3 "Decommissioning and R&D" of ROSATOM State Corporation for 2011, 2012, 2013, works under 30 activities were accomplished in the amount of RUB 904.7 mln, including under 23 activities that are not included in FTP NRS in the amount of RUB 468.5 mln

In addition, in 2013 works were accomplished under 19 activities in the amount of RUB 70.36 mln at the expense of funds in reserve 3 "Decommissioning and R&D" that remained available to the TVEL FC's enterprises. As a result of accomplishment of works, planned target indicators determined for activities under FTP NRS for 2008-2015 were achieved for year 2013.

In 2014 and subsequent years, works for liquidation of the nuclear "legacy" will be carried on.

Table 48. Pollution of the environment with radionuclides (RN)

Indicator	2011	2012	2013
Emission of alpha-active RN into the atmosphere, Bq	8.32×10^{9}	7.81×10^{9}	7.54×10^{9}
Presence of areas contaminated with RN, thousand m^2	13,205.4	13,601.4	13,600.3
Disposal of wastewater containing RN, Bq	5.64×10^{9}	4.78×10^{9}	5.15×10^{9}

Areas contaminated with radionuclides are within the zone of professional responsibility of enterprises of MSZ JSC, JSC NNCP, JSC CMP and JSC SGChE. No industrial activity is carried out at the said enterprises, access to them is highly restricted.

In 2013, there was no contamination of new areas with radionuclides as a result of activities of the TVEL FC's enterprises. All identified contaminated areas are a consequence of activities of enterprises that were intended for improving the defensive ability of the country during the period of creation of the "nuclear shield".

Table 49. Pollution of the environment with radionuclides as of December 31, 2013, by enterprises of the TVEL FC, thousand m^2

Enterprise	Volume of areas contaminated with radionuclides, thousand m^2			
	Total	including:		
		Sanitary protection zone	Professional responsibility zone	Industrial site
MSZ JSC	1,375	0	1,235.5	139,5
JSC NNCP	418.5	0	127,5	291
JSC CMP	1,413.8	0	0	1,413.8
JSC SGChE	10,393	300	0	10,093
Total:	13,600.3	300	1,363	11,937.3

As at the end of 2013, the total area of the TVEL FC's enterprises that was contaminated with radionuclides and was to be rehabilitated was 13,600.3 thousand m^2.

In 2013, JSC NNCP carried out rehabilitation of 4,365.0 m^2 of a radiation contaminated area (of which 3,131.0 m^2 are newly discovered areas of contamination). Financing of these works was carried out at the expense of special reserve fund 3 (Decommissioning and R&D) of ROSATOM State Corporation.

> At the Fuel Company's enterprises, an Automated Radiation Monitoring System (ASKRO) has been successfully functioning and has been constantly improved.

The enterprises' ASKROs are a part of the Industry Radiation Situation Control Automated System (OASKRO) of ROSATOM State Corporation. OASKRO is linked to the Unified State Radiation Situation Control Automated System (EGASKRO).

ASKRO control station function at all NRHS of the Fuel Company and are located at production sites, sanitary protection zones and monitoring zones (professional responsibility zones) of the enterprises.

The radiation situation is measured in real-time mode, data from monitoring sensors of the enterprises' ASKRO is transmitted to the Situation and Crisis Management Centre of ROSATOM State Corporation and are reflected at **http://www.russianatom.ru/**.

More information on assurance of the nuclear and radiation safety the TVEL FC's facilities is available in the online version of the 2013 annual report.

In 2013, 73 inspections by state control (oversight) authorities were carried out at the TVEL FC's enterprises, of which 51 inspections were carried out by the Federal Service for Environmental, Technological and Nuclear Oversight of Russia, 10 inspection — by FMBA, and 12 inspections — by the the Ministry for Emergency Situations (with respect to fire safety). It was noted in the opinions of the oversight authorities that, in general, radiation and nuclear safety at the Fuel Company's enterprises complied with the requirements of standards and rules pertaining to the use of nuclear power.

GRI G3.1: PR2

> There were no cases of forfeiture from the TVEL FC of licenses in the sphere of the use of nuclear power.

Energy Saving and Efficiency Improvement

The project for power consumption reduction and improvement of the energy efficiency of industrial enterprises of ROSATOM State Corporation is one of the key projects for the purpose of achieving set targets pertaining to improvement of the industry's competitive ability. The Fuel Company's enterprises are pilot enterprises that are in the process of organization and implementation of an energy saving methodology and accounting in the industry in general, starting from energy studies, development of long-term programs and specific activities.

In 2013, power consumption at the TVEL FC's enterprises was reduced by 20.2% (787 mln kWh or 2.8 mln GJ), heat energy — by 32.7% (1,339 thousand Gcal or 5.6 mln GJ) as compared to the base 2009 under comparable conditions*. The reduction in energy resources consumption (under conditions comparable with 2009) in monetary terms was 24.4% (RUB 1,951 mln), while the target indicator was 20%.

GRI G3.1: EN5

* Adjusted with bringing compared power consumption indicators to the same volume of production and provided services.

Fig. 41. Electric Power Consumption, mln KW×h

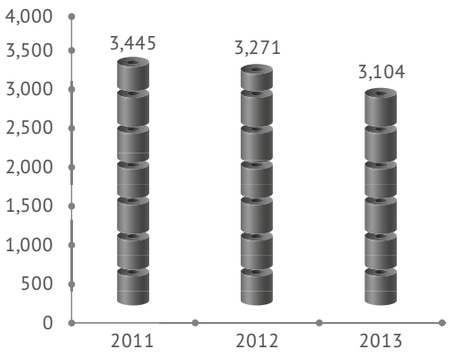
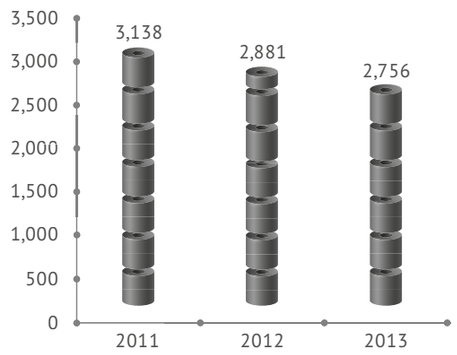


Fig. 42. Thermal Energy Consumption, thousand Gcal



GRI G3.1: EN4

Reduction of energy consumption is not related to reduction of the volume of the TVEL FC's production program and was achieved by way of realization of activities under the Program "Energy Saving and Efficiency Improvement" effective at the TVEL FC's enterprises from 2011. In 2013, the volume of financing under the Program was RUB 1,847.5 mln

GRI G3.1: EN6

The main activities that were conducted by the TVEL FC's enterprises and made it possible to achieve the planned target of reduction of energy resources consumption in 2013 were:

- creation of automated systems of commercial and technical accounting of various energy carriers;
- installation of variable frequency drives in various systems;
- modernization of lighting systems with transition to energy-saving equipment;
- replacement and modernization of energy-intensive technological and power equipment;
- decentralization of the compressor park;
- winterization of enclosure structures of buildings and structures.

Additional activities that were realized over the period of 2012-2013 and made it possible to considerably reduce the consumption of energy resources by the TVEL FC:

- modernization (replacement) of technological and power equipment: transition from gas centrifuges of the eighth generation to gas centrifuges of the ninth generation; replacement of induction caking furnaces with induction casting machines and resistance furnaces; change-over of gas centrifuges power supply to lower voltage by changing the magnetization algorithm in frequency transformers; change-over of cooling machines to a different type of coolant (freon 314A); replacement of thermal insulation in heat supply systems; liquidation of steamlines and other activities made it possible to reduce power consumption by 4%, heat energy consumption — by 5.7%;
- organizational and technical activities: deloading of ventilation and upper (ceiling) lighting during peak hours of power consumption; optimization of operation of the industrial pump plant; optimization of the equipment load; implementation of closed water circulation schemes in sublimate production plants and other activities made it possible to reduce power consumption by 5.1%, consumption of heat energy — by 0.2%;
- optimization (conservation) of production areas made it possible to reduce power consumption by 5.9%, consumption of heat energy — by 2.8%.

In 2013, realization of the project of ROSATOM State Corporation for implementation of an automated energy efficiency control system at the TVEL FC's enterprises was completely accomplished, which makes it possible to solve a range of the most important tasks of achieving real economic indicators of reduction of expenses for energy resources and improvement of the efficiency of activities in the medium term.

In 2013, as a part of activities for development and expansion of the Integrated Management System, the TVEL JSC and its enterprises entered into agreements for creation, implementation and certification of an energy management system on the basis of requirements of the international standard ISO 50001, which makes it possible to apply a system approach in the assurance of continuous improvement of energy characteristics, energy efficiency and energy saving.

In 2013, 55.5 mln GJ of primary energy sources were consumed at the TVEL FC's enterprises in total, of which with a breakdown by sources: natural gas — 27.2 mln GJ; coal — 28.0 mln GJ; fuel oil — 0.3 mln GJ.

The TVEL FC's enterprises purchase primary sources of energy from third party suppliers.

In 2013, the volume of consumption of electric power and heat energy by the Company's enterprises in money terms was RUB 3,925 mln and RUB 1,321 mln respectively (under comparable conditions of 2009)*.

Fig. 43. Primary Energy Consumption by the Sources, mln GJ

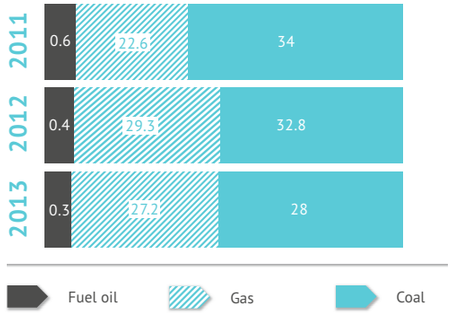
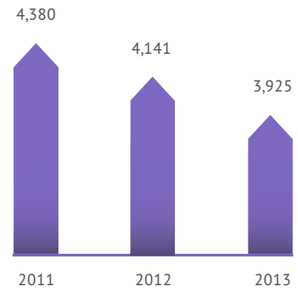


Fig. 44. Electric Power Consumption by TVEL FC Enterprises in Monetary Terms, mln RUB



GRI G3.1: EN3

* No accounting of energy consumption in money terms with a breakdown by primary sources is carried out by the Fuel Company.

GRI G3.1: EN4

In 2013, there was practically no change in indirect energy consumption* at the TVEL FC's enterprises, and it amounted to 17,148 mln GJ.

Fig. 45. Thermal Energy Consumption by TVEL FC Enterprises in Monetary Terms, mln RUB**

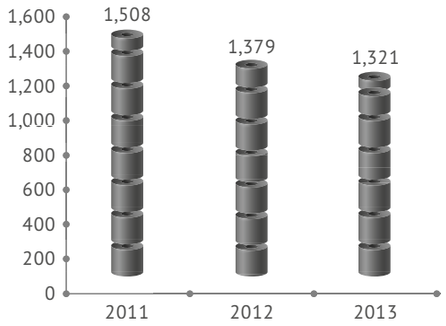
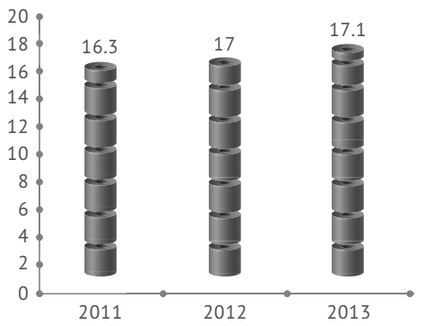


Fig. 46. Indirect Power Consumption by Enterprises of TVEL FC, mln GJ***



In 2014, as a part of activities for improvement of energy efficiency, the following is planned:

- reduction of energy resources consumption by the TVEL FC's enterprises (under conditions comparable with year 2009) by 23%;
- creation, implementation and certification of an energy management system on the basis of requirements of the international standard ISO 50001;
- continuation of realization of the Program "Energy Saving and Efficiency Improvement" at the TVEL FC's enterprises;
- conduct of a new energy study in accordance with the requirements of article 16 of Federal Law dated 23 november, 2009 No. 261-FZ "On energy saving and improvement of energy efficiency and on amending certain enactments of the Russian Federation".

Social Capital

Summary information
Direct economic value generated and distributed**, mln RUB.**

Indicator	2011	2012	2013
Direct economic value generated	151,081	137,913.8	162,788.6
Economic value distributed incl.:	125,285.3	124,772	142,265.1
Operational costs	73,404.9	63,875.2	84,316.4
Salaries and other payments and benefits to the employees	32,512	24,727.3	21,957.5
Payments to capital providers	3,606.4	20,054.2	19,710.7

* Indirect energy consumption, according to guideline GRI G3.1, shows the volume of energy spent for production of electric power, steam, heat energy and other types of intermediate energy consumed that are consumed by the reporting company and are purchased from third parties (i.e. are not produced within the company).

** Under comparable conditions of 2009.

*** No accounting of indirect energy consumption with a breakdown by primary sources is carried out at the TVEL FC's enterprises due to the absence of statutory requirements with respect to maintaining such accounting and due to the fact that the benefit from obtaining such information is materially less than the cost of obtaining it.

**** For the purpose of calculation, data of consolidated statementreports of the Fuel Company that were prepared in accordance with Russian Accounting Standards were used. Statements in accordance with IFRS are prepared within a longer time period.

Indicator	2011	2012	2013
Investments in communities and charity	791.8	560.5	170.3
Gross tax payments*	14,970.2	15,554.8	16,110.2
Economic value retained	25,795.5	13,141.8	20,523.51

GRI G3.1: EC1

Development of the Regions of Presence

Achievement of strategic targets set before the TVEL FC is impossible, if there is no social agreement, requirements of social and environmental acceptability are not complied with. This, in its turn, is caused by the fact that social tension in regions may inflict irreparable reputational harm to the Fuel Company in the international market with respect to the reliability of supplies and, therefore, result in the foreign clients' reorientation towards dealing with the Company's competitors.

GRI G3.1: 1.2
EC9 SO1

In this connection, in determining strategic development targets, the management company TVEL JSC has taken into account to the fullest extent potential social and economic consequences of taken decisions and has developed projects for development of regions of presence and assurance of their social stability.

> For the purpose of realization of projects for development of areas of presence, the TVEL FC maintains constant and complex coordination with all stakeholders, mainly with public authorities and local self-governing bodies.

For the purpose of realization of projects for development of areas of the enterprises' presence, the TVEL FC has developed and approved in September 2013 the Program "Formation and preservation of social agreement environment in regions of the Fuel Company's presence" which is oriented at all enterprises of the TVEL JSC, systemizes the Company's experience in this area and includes three groups of projects:

- cooperation with local and regional public authorities with respect to the concept of coordination with local and regional public authorities with respect to the concept of the territories' development, the growth of regional taxes and maintenance of social and economic stability for years 2016-2018;
- social programs at the enterprises and in the cities of presence, development of social partnership;
- building multi-level internal and external communications.

Agreements on cooperation with the regions

In 2012, the TVEL JSC initiated the drawing up and signing of Agreements on cooperation between ROSATOM State Corporation and public authorities of Russian Federation constituent

* The amount of principal tax liabilities accrued for payment to budgets of various levels for the reporting period, including:
- taxes included in costs;
- contributions to non-budget funds;
- profit tax of organizations.

entities on which territory enterprises of the Fuel Company are located. Such agreements are the result of efficient cooperation with public authorities and provide for realization of an entire complex of activities aimed at social and economic development of regions and cities of the Fuel Company's presence.

In these agreements, the following key aspects are determined:

- mechanisms of reallocation of tax payments in favor of regional budgets and local budgets;
- terms of co-financing of business support and development funds;
- terms of collective participation in realization of a Program of creation of new jobs;
- terms of collective participation in the establishment of physical and mathematical lyceums*.

Based on the results of the positive innovative experience, such practice has been extended to the majority of regions of presence of enterprises of ROSATOM State Corporation. In addition to 4 Agreements signed in 2012 (with the Sverdlovsk and Tomsk Regions, Krasnoyarsk Territory and the Udmurt Republic), an Agreement was entered into with the Vladimir Region in June 2013.

> The key point of each of the Agreements is an agreement on the return of an increase in regional taxes from the activities of enterprises of ROSATOM State Corporation in the territory of a constituent entity of the Russian Federation to the municipal budget for activities aimed at social and economic development of nuclear power cities.

Consolidated group of taxpayers

On November 16, 2012, the Federal Tax Service of Russia registered an agreement on creation from year 2013 of a consolidated group of taxpayers.

The consolidated group of taxpayers includes 34 organizations of the nuclear industry, 10 enterprises of the Fuel Company (TVEL JSC, JSC SGChE, JSC PA ECP, JSC AECC, JSC CMP, JSC MZP, JSC VNIINM, JSC VPA Tochmash, UGCMP Ltd., NRDC LLC).

Creation of the consolidated group of taxpayers in the nuclear industry will make it possible to increase profit tax payments to budgets of regions in which productions capacities are registered and operate. Each specific budget of a constituent entity of the federation will receive a part of the total profit tax depending on the value of capital assets of the participant of the consolidated group of taxpayers who is registered in its territory and the number of employed personnel.

Thus, in 2013 (as of the end of 2012) the actual return of the profit tax to budgets of regions in which the TVEL FC operated was RUB 447.5 mln, and it is planned that in 2014 this figure will be above RUB 2,000 mln

* The report contains information on the most material results of the reporting period that were achieved in the course of realization of agreements: on realization of the project "Breakthrough" ("Proryv") for creation of a pilot and demonstrational complex with a a BREST-OD-300 reactor on the base of JSC SGChE (see the section "Innovative Activities in Nuclear Industry"), on development of physical and mathematical lyceums (see the section "Charitable Activity and Support of External Social Programs"), on the growth of profit tax payments to regional budgets (see the subsection "Consolidated group of taxpayers" of this section.

Impact on Closed Administrative Territorial Units

The enterprises of TVEL FC are situated in various regions of the Russian Federation. However, the Company's most significant impact is on the social and economic situation in the Closed Administrative Territorial Units and monotowns.

Table 50. Labour force employed on the enterprises of TVEL FC

City	Region	% of the labour force employed on the enterprises of TVEL FC
Angarsk (JSC AECC)	Irkutsk Region	0.91
Vladimir (JSC VPA Tochmash)	Vladimir Region	0.8
Kovrov (KMP OJSC)		1.94
Glazov (JSC CMP)	Udmurt Republic	6.79
Zelenogorsk (JSC PA ECP)	Krasnoyarsk Territory	6.33
Novouralsk (JSC UEIP)	Sverdlovsk Region	5.04
Seversk (JSC SGChE)	Tomsk Region	7
Elektrostal (MSZ JSC)	Moscow Region	4.43

The change of labour force balance in the Closed Administrative Territorial Units and monotowns as a result of the restructuring* main stage carried out in TVEL FC brings forth the following problems for the Company:

- absence in the long view of the skilled labour for the development of the new businesses due to the outflow of the specialists and young people;
- jobs deficit and, consequently, the growth of social strain;
- low investment attractiveness of the cities;
- growth of the load on the economically active population;
- increased corporate social responsibility of the companies within TVEL FC;
- establishing of the significant group of the economically active population not employed by the city-forming enterprise and by the government sector (self-employment, employment in the nearest towns, employment within the businesses with the low value added);
- absence of alternative "anchor" enterprises in the Closed Administrative Territorial Units.

TVEL FC develops and takes actions to prevent the above mentioned risks, in particular:

- implements projects on development of business environment in the cities of its presence;
- attracts major investors, including private investors, and creates "anchor" businesses;
- encourages further development of educational institutions and infrastructure;
- creates jobs for skilled youth;
- develops projects for the development of the cities and territories in cooperation with ROSATOM State Corporation and with the state regional bodies and municipalities;
- increases the tax contributions to the local budgets.

Table 51. Policy for achievement of social harmony in the cities of priority for TVEL FC

City of presence	Projects
Seversk	Encouraging of the agglomeration process Tomsk-Seversk Industrial Park "Tomsk-Seversk" Fund for the development of small businesses Cooperation with the local government bodies

* See details about the restructurisation in the Annual report of TVEL JSC for the year 2011, Section 9.2. "Results of restructurisation of enterprises".

Table 51. Policy for achievement of social harmony in the cities of priority for TVEL FC

City of presence	Projects
Novouralsk	Development of the high-speed railway transport to Yekaterinburg Project "Industrial Park" Jobs for youth Development of general products output
Glazov	Development of general products output Glazov fund for entrepreneurial development Association of the FC's enterprises
Zelenogorsk	Attraction of a company which is an anchor investor for the purposes of establishing a new business and creating jobs Fund for the entrepreneurial development

Three-sided commissions for the solution of the social problems

In the Closed Administrative Territorial Units and Angarsk the three-sided commissions, called the Coordination Councils, established for the solution of the social problems continued its work in 2013. They consist of the directors of enterprises, heads of the Closed Administrative Territorial Unit and the heads of trade unions. Within the frameworks of such commissions the parties come up with the solutions for the improvement of the economic conditions and development of the TVEL FC companies, for the ensuring of the coordinated activities to maintain stability in the labour market, for the extensive support of the active employment which furthers the creation of new jobs, achievement of social and economical stability in the Closed Administrative Territorial Units.

In 2013 the pilot project for the development of entrepreneurial activity called "The School of entrepreneurship" was implemented in the Closed Administrative Territorial Unit Zelenogorsk. This is the joint project of TVEL JSC, JSC PA ECP, the Administration of Zelenogorsk and the Ministry of investments and innovations of the Krasnoyarsk region. Following the results of the four stages which included educational and consulting events, 20 projects were selected and recommended for receiving loans and grants to the Fund for the entrepreneurial support and development of Zelenogorsk. Based on the results of implementation of the approved investment projects the decision will be taken to replicate the experience for the other Closed Administrative Territorial Units hosted by the Fuel Company.

The plans for the year 2014 and in the mid-term view

The primary objective of TVEL FC in the mid-term view with regard to the impact on the territory of presence shall be the development jointly with ROSATOM State Corporation of the industrial program of the strategic development of the Closed Administrative Territorial Unit of the nuclear industry.

The development of such program suggests the working-out and harmonizing the series of critical decisions with the authorities on different levels, in particular, on the following problems:

- target directions for the development of the Closed Administrative Territorial Unit hosted by ROSATOM State Corporation;

- relocation of innovative and/or technology intensive works which are the priority for the state (including industry works) to the sites within the Closed Administrative Territorial Units;
- creation of the industry parks projects in Novouralsk, Tomsk and Seversk through allocation of the dedicated territories and removing of the advanced technology enterprises to the specialized sites having appropriate infrastructure and personnel resources;
- development and synergism in transportation, social and engineering infrastructure in the agglomeration Tomsk – Seversk and in the agglomeration of Yekaterinburg*;
- liberalization of treatments within the Closed Administrative Territorial Unit.

Charitable Activity and Support of External Social Programs

GRI G3.1: EC8

The contribution of the Fuel Company to the social and economic development of the regions of presence means not only the participation in the formation of the income base for the regional and local budgets but also the implementation of the whole body of social and charity programs.

The charitable activity of the Fuel Company is arranged systematically and based on the principles of:

- Support to charity programs and projects in the cities of presence of the TVEL FC enterprises;
- Support to the common values (energizing of business environment, creation of new jobs, development of the educational, health-care, culture and sports infrastructure);
- Co-funding of charity programs jointly with the local authorities and central government bodies of the Russian constituent entities.

Since 2012 the Charity Council has been working within TVEL JSC; its functions include the determining of purposes and priority areas of charitable activity, approval of the budget and events for the charitable activity, efficiency assessment of the charitable activity of TVEL FC etc. The priority areas of charitable activity for the Fuel Company now are the events held with the purpose to create jobs and energize the business environment in the cities of presence. For example, supported by TVEL FC:

- Businessman of the Year Awards are held annually;
- in 2013 the Funds for the entrepreneurial development and support began their activities in the cities of Zelenogorsk, Seversk and Glazov. The funds provide loans and grants to the small and middle-sized businesses for the creation of new jobs.

One of the primary areas of the charitable activity which is put into effect jointly with ROSATOM State Corporation is the creation and development of physics and mathematics lyceums for the training of the prospective skilled specialists for the nuclear industry.

This project is designed to create conditions for the self-actualization of children, finding out and maintaining of the talented schoolchildren, bringing up of the prospective great

* Including the city of Novouralsk.

scientists. This project is tailored to attract young people to the fundamental sciences such as physics and mathematics, to facilitate the entry to the higher educational establishments which specialization is physics and mathematics.

At this stage the project is being implemented in three cities: Seversk, Zelenogorsk and Glazov. On September 2, 2013 the lyceum No. 174 of Zelenogorsk was given the status of physics and mathematics lyceum. Lyceum No.174 has become the basis for the creation of a physics and mathematics lyceum due to the high educational level and high success level of its pupils.

For the year under report immobile and mobile classrooms were equipped in Seversk and Glazov, including with interactive blackboards, numerical programmed control systems, robotized educational kits and PCs. The gyms have been built in lyceums since 2013.

Table 52. Funding of charity and social initiatives of TVEL FC in 2013

Seq. Nos	Events (Projects)	Funding in 2013, in mln RUB
1	Contribution to the improvement of housing facilities for key budget specialists of Novouralsk	24
2	Improvement of equipment status of physical infrastructure in educational establishments and creating better conditions in the pre-school establishment in Novouralsk	20
3	Events designed to support various youth groups in Novouralsk	50
4	Purchase of equipment for the geriatric unit in Novouralsk	2
5	Purchase of equipment for the pediatric center in Angarsk	3.36
6	Events purposed to social and economic development of Vladimir: purchase of an ambulance car, installation of playgrounds for children, purchase of equipment for kindergarten, etc.	4.95
7	Support to the activities of the nuclear industry information centers in the regions of presence of TVEL FC enterprises (ANO "Data Center of Nuclear Field")	10.26
8	Support to the international social environmental initiatives in the cities of presence of TVEL FC enterprises	4.5
9	Helping hand to the curacies of the Russian Orthodox Church	13.3
10	Support to the sports activities in the cities of presence of TVEL FC enterprises	4.87
11	Participation in the arrangement and holding of Businessman of the Year Awards in the cities of presence of TVEL FC enterprises	1.05
12	Support to the social and cultural events in the cities of presence of TVEL FC enterprises	6.7
13	Organization of a youth camp and support to the children international environmental protection events	2.47
14	Support to the mass and amateur sports in the cities of presence of TVEL FC enterprises	5.04
15	Support to the non-governmental organizations, orphan homes, residential care homes, veterans, invalids and persons in hardship in the cities of presence of TVEL FC enterprises	7.04
16	Support to the educational establishments in the cities of presence of TVEL FC enterprises	2.48
17	Holding of competition of social and charity projects in the cities of presence of TVEL FC enterprises	8.26
	Total	170.28

Reduction in the costs for charitable and sociable programs as compared with the year 2012 is compensated by the growth of the corporate income tax paid to the regional budgets within the consolidated group of taxpayers.

Results of key risks management according to the area of activity

Risk	Risks management results
Social risk	Support to the social and economic development of the regions of presence within the frameworks of the Cooperation Agreements between the State Corporation ROSATOM and the central governmental bodies of the Russian constituent entities. Increased involvement of the employers to the implementation of the strategy of the Fuel Company as a result of the communication campaigns held.
Reputational risks	The risk is fended off (within the frameworks of the preventive events in accordance with the Procedure of Monitoring of reputational risks factors approved in 2013)

Stakeholders Engagement

> TVEL FC is unexceptionally guided by the principle of openness* and carries out a continuous work with stakeholders; it systematizes, analyzes and takes accounts of their needs.

GRI G3.1: 3.5 4.4 4.14 4.15 4.16

Such approach allows to timely react to the risks which may arise and which relate to the stakeholders engagement, first of all of social and reputational nature.

In 2013 based on the interrogation of the leading managers of the Fuel Company the ranging chart of stakeholders which reflects the interdependence between them and the Company was actualized.

The system of interrelations with each single group of stakeholders has and will have an essential impact on the business of TVEL FC; that is the reason why the consideration for their interests while planning on different levels and while carrying out the everyday activities is of high importance for the sustainable development (see Table 53). The analysis of key events, main financial and production results and the performance results of the Fuel Company for the sustainable development proves evidently that the Social Capital is one of the main sources for the sustainable business.

* Considering for objective restrictions specific for the nuclear industry.

Fig. 47. TVEL JSC Stakeholders Rank Map

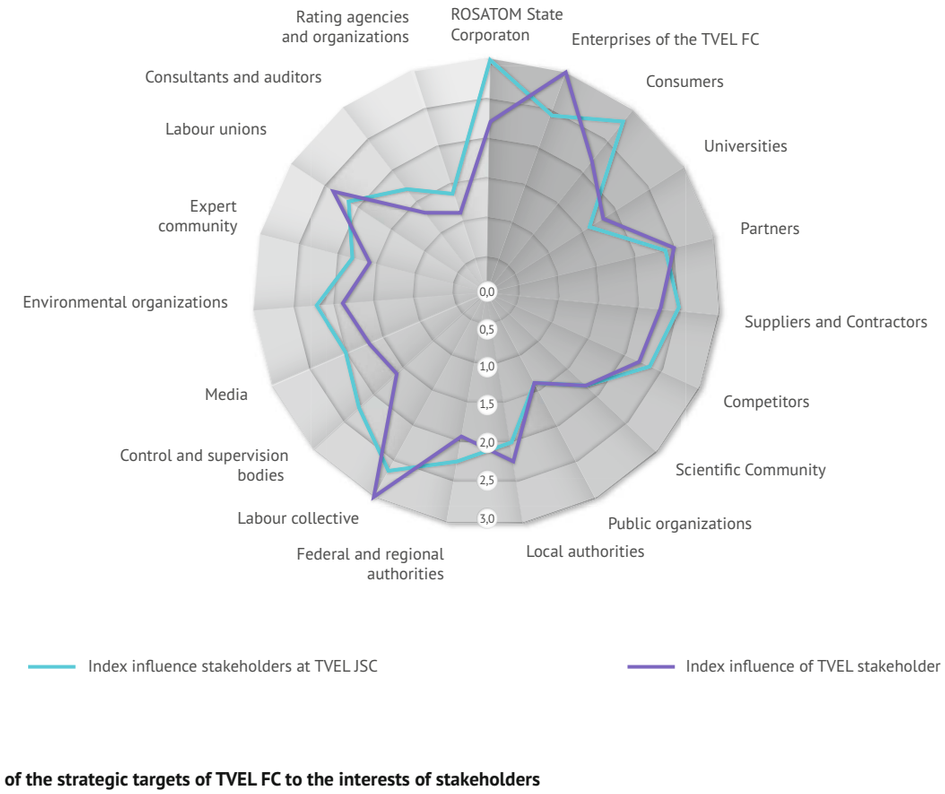
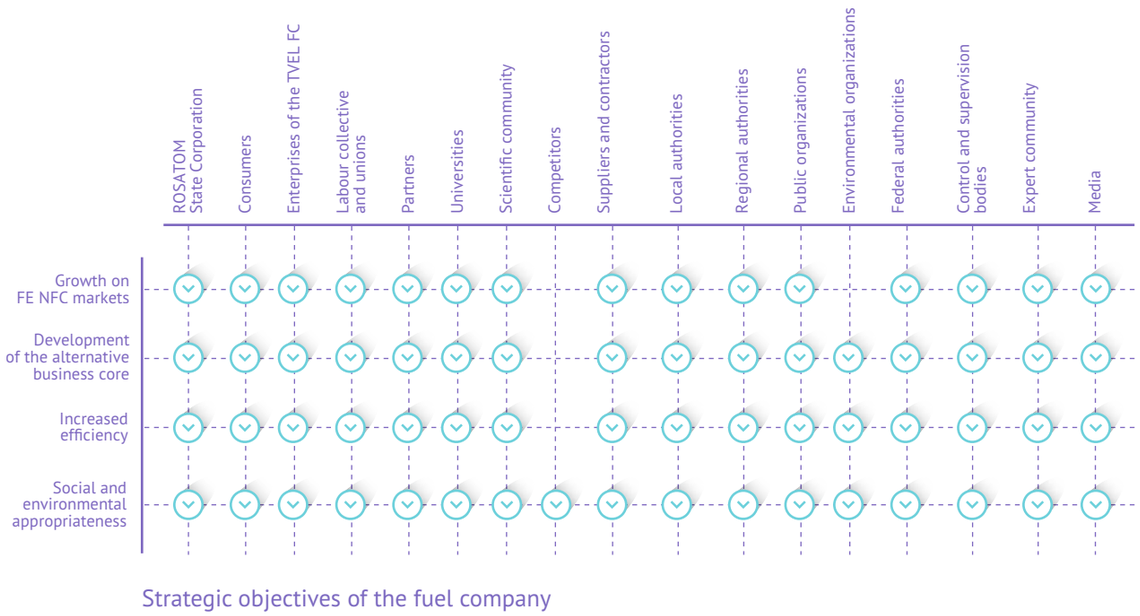


Table 53. The relevance of the strategic targets of TVEL FC to the interests of stakeholders



The systematic relations between TVEL FC and the main groups of stakeholders is described in the following table:

Table 54. Chart of interactions with the main stakeholders

Target group of stakeholders	Key interests		Performance measurers for TVEL FC	Institutes and systematic interrelations	Programs and events
	Stakeholder	TVEL FC			
State Corporation ROSATOM	Increased manageability. Efficiency	Implementation of advanced management technologies. Efficiency	Increase in labour productivity. Resources saving. Positive dynamics of financial, economic and production indicators	Production System of ROSATOM. Personnel management system. Implementation of project management	Plans for RPS implementation. RPS training and development program. Small group leaders development program. Replication of IT-solutions for all FC enterprises. Transformation of organizational set-up
Consumers	Supplies stability, price, quality and reliability of deliveries, customer appeal of the products	Stability of orders. Markets expansion. Income growth	Income growth. Decreasing of fuel failure probability	Long-term contracts. Satisfaction assessment. "Zero Failure Level" project	Feedback system. Quality assessment. Expectations analysis
Enterprises of the TVEL FC	Current and new businesses support and development	Efficiency of management. Income growth	Dividends growth. Proceeds from non-nuclear products	Centralized management. Decomposition of business processes and IT-solutions	Regulations. Feedback system. Intracorporative communications: •"Information days" •Newspaper "Strana Rosatom", "Element Budushchego"
Labour collective and unions	Stable work and stable payments. Socially reliable employer. Professional growth	Efficient work. Skilled staff. Employees loyalty	Increase in labour productivity. Decrease in turnover rate. Earnings growth. Salaries growth	Collective bargaining agreement. HR policy. Intra communications buildup project	Personnel development programs. Involvement assessment. Information days. Social programs
Partners and contractors	Mutually fruitful cooperation. Increased competitive ability		Income growth. Clients and resources database expansion	Joint ventures. Joint projects and contracts	JV ALVEL. TSOU. TVS-KVADRAT. ITER. Nuclear fuel plant in the Ukraine
Suppliers	Transparent purchasing system. Paying ability. Stability of orders	Quality, stability and reliability of supplies. Favourable price	Costs saving	Uniform industry purchasing standard	Internet-portal of purchases with the feedback system. Control of adherence to the uniform industry purchasing standard

Table 54. Chart of interactions with the main stakeholders

Target group of stakeholders	Key interests		Performance measurers for TVEL FC	Institutes and systematic interrelations	Programs and events
	Stakeholder	TVEL FC			
Local and regional authorities, environmental and other public organizations	Social and economic development of the regions. Employment of population. Environment protection	Stability in the regions of presence. HR availability	Unemployment level. Average wages and salaries. Tax liability. Environmental situation	Agreements with regional authorities. Taxpayers consolidated group agreement. Funds of entrepreneurial development	Social and charity projects jointly with the government bodies. Environmental reports. Meetings. Conferences. Dialogues. Nuclear power information centers
	Attraction of new investors. Creation of business environment		Creation of new jobs. Additional income to local budgets	In the long view: industry program for the strategic development of the Closed Administrative Territorial Units of nuclear power industry	Making projects on industrial parks (technology parks)
Federal authorities	Taxes Environmental protection. Safety	Funding Improvement of legislative framework	Funding received Gross tax liabilities. FTP performance. Considered proposals on improvement of legislative framework	Federal target programs. Intergovernmental agreements. Laws and regulations	FTP Events. Fulfillment of terms of intergovernmental agreements. Participations in legislative initiatives of ROSATOM State Corporation

Multilevel external and internal communications buildup project

The buildup of multilevel external and internal communications was made a separate project in 2013. The development of internal communications in TVEL FC is aimed to formalize the corporative culture, to transmit the company's information and values, to increase the involvement of the employees and to improve the information flows inside the company. The development of external communications is tailored to build up and maintain the system interrelations for the social and economical development solutions in the territories of presence, fact-based and exhaustive disclosure of information regarding the activities of TVEL FC in mass media.

Improvement of awareness of employees

In order to improve the information awareness of the employees of the Company's enterprises in 2013 the management of TVEL JSC held the meetings with the labour collectives of the enterprises making the presentations of the strategies of the Fuel Company development and functional strategies in separate areas. The built up cascaded information systems allowed to involve more than 97% from the total number of the Company's employees. The anonymous survey held based on the events demonstrated that the level of understanding and the measure of support of the Company's development strategy by the employees have increased.

Complains and appeals handling policy

> For the direct connection between an employee and the President of TVEL JSC the post boxes are installed in every enterprise; using them any employee can address the management of TVEL FC confidentially.

Complains and appeals are handled based on the Federal Law No. 59-FZ dated May 2, 2006 called "On procedures for consideration of the appeals filed by the citizens of the Russian Federation". The feedback is mandatory: every appeal and every feedback is kept record of. In 2013 12 collective appeals, 28 appeals made by the employees of the enterprises and by private persons and 12 appeals of official persons have been received and considered.

Participation in international events

During 2013 the official representatives of TVEL FC participated in the following international events:

Table 55. Exhibition activities of TVEL FC in 2013

Seq. No.	Name of event	Period	Location
1	International exhibition of nuclear power engineering and industry "KazAtomExpo"	April 2013	Astana, Kazakhstan
2	All-Russian exhibition "Goszakaz-2013"		Moscow, Russia
3	International forum "Atomexpo - Belorussia"		Minsk, Belarus
4	International conference and exhibition "Power and Electricity World Africa 2013"		Johannesburg, RSA
5	Exhibition and international congress on innovations in nuclear reactors ICAPP 2013		Island Cheju, South Korea
6	Forum of suppliers of nuclear industry "ATOMEKS – Northwest"		St.-Petersburg, Russia
7	International conference and exhibition "Power -Gen India and Central Asia 2013"	May 2013	Dehli, India
8	International specialized exhibition "Metrology 2013"		Moscow, Russia
9	China international exhibition of nuclear power industry (CIENPI)		Shanghai, China
10	International forum "ATOMEXPO 2013"	June 2013	St.-Petersburg, Russia
11	Exhibition within the framework of the 57th General conference of IAEA	September 2013	Vienna, Austria
12	International exhibition and conference "Fuel & energy complex Complex of the Ukraine: present and future 2013"		Kiev, Ukraine
13	38th Annual symposium of World Nuclear Association		London, UK
14	Forum of suppliers of nuclear power industry "ATOMEX - Europe"	October 2013	Brno, Czech Republic

Table 55. Exhibition activities of TVEL FC in 2013

Seq. No.	Name of event	Period	Location
15	55th International engineering exhibition "MSV-2013"	October 2013	Brno, Czech Republic
16	International forum "Open innovations 2013"		Moscow, Russia
17	VII International conference and exhibition "AtomEko 2013"		
18	Forum of entrepreneurship of Siberia	November 2013	Krasnoyarsk, Russia
19	Forum of suppliers of nuclear power industry "ATOMEX - Africa"		Johannesburg, RSA
20	Forum of suppliers of nuclear power industry "ATOMEX 2013"	December 2013	Moscow, Russia

Stakeholders Engagement During the Preparation of the Report 2013

While preparing the Report the principles of Standard AA1000APS were adhered to, in particular, the compliance of the information published with the requests of stakeholders involved was ensured. Four on-site dialogues were held for the implementation of this principle while preparing this Report.

The representatives of ROSATOM State Corporation, industry partner organizations, subsidiaries, environmental, public, trade union organizations, higher educational institutions, local governmental authorities, mass media, consultants and auditors participated such dialogues.

On December 12, 2013 the dialogue on the TVEL FC Annual report approach for the year 2013 was held.

During the dialogue the Report approach developed by the Company considering for the proposals of stakeholders involved was presented; the participants advanced the recommendations which allowed finalizing and specifying the approach to the Report.

On March 14, 2014 the dialogues on priority subjects of the Report were held:

- Innovative Potential as Development Basis of TVEL FC;
- Social Capital Management of TVEL FC.

During these events the reports of the Company's managers were listened to; following the results of the dialogues 36 proposals were able to be gathered both for the developing of the priority subjects in the Report 2013, and for the activities of the Fuel Company as a whole.

The draft annual report of TVEL JSC for the year 2013 prepared subject to the comments made by stakeholders involved in the course of the dialogues was presented **during the public consultations on April 23, 2014.**

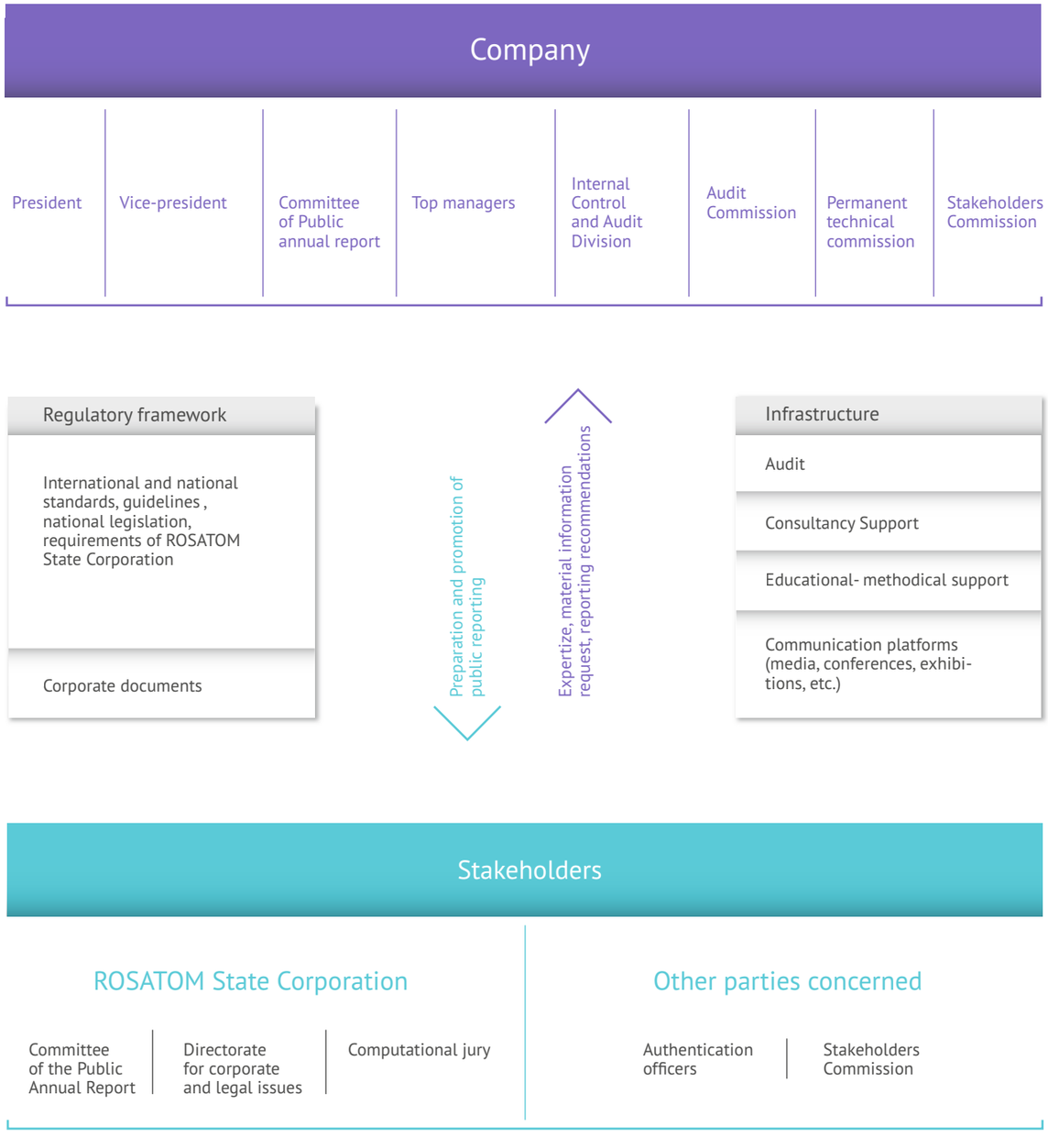
Following the events the proposals were made on improvement of the text content of the Report and the process of interaction.

Public Reporting System of TVEL FC

Due to the specific nature and scale of its activities TVEL FC is in the area of interests of the great number of stakeholders; it influences on and it is influenced significantly by its entourage. The business success of the Company depends on the development of the constructive and trust-based relations both inside the Company and with the society. It is just with the purpose to ensure the openness of the public position of TVEL FC in the area of sustainable development was elaborated in 2011 (see details in the annual reports for 2011-2012).

TVEL FC generated the system of public accountability which represents the combination of elements, processes and connections between them ensuring the activity with regard to public accountability and its development.

Fig. 48. Public Reporting System Diagram



> The primary elements of the public accountability system provided for by the Policy of ROSATOM State Corporation in the area of public accountability shall be the operational center of responsibility for public accountability of TVEL FC, legislative framework, the representatives of stakeholders (participating in the preparing of the accounting data) as well as infrastructure support (consultative and instructional support, audit, etc.).

Legislative framework

The Report shall be prepared based on the documents governing the public reporting of TVEL JSC:

- The standard of public annual reporting of TVEL JSC;
- The rules of public annual reporting of TVEL JSC;
- Charter of the committee of stakeholders of TVEL JSC;
- Charter of the committee on public annual reporting of TVEL JSC.

Operational center of responsibility

> The operation of the public accountability system of TVEL JSC is based on the work of variety of subunits. The main functions are divided between the vice-presidents of TVEL JSC, the Committee on public annual reporting of TVEL JSC, and the Public Relations Department (see details in the Report for 2011-2012).

GRI G3.1: 2.10

For the purpose of dissemination of information about the Company's activities the annual reports of the committee on public annual reporting of TVEL JSC participate in federal, industry and other contests; the KPI card of the Head of PR Department includes the index "Awards in Federal Contests".

TVEL JSC Annual Report 2012 Awards:

- 2nd place in overall standings of the industry contest of the annual reports of ROSATOM State Corporation;
- Moscow Exchange Contest of annual reports: nominated for award in the nomination "Annual Report Best Design and Printwork";
- Contest held by the Expert rating agency: TVEL JSC's report is recognized an award winner within the special nomination "For the contribution to the development of stakeholders engagement while preparing annual report", as well as was it nominated for award in the nomination "Design and Printwork".

While preparing the report the great deal of work has been done both by the Company and the representatives of stakeholders.

The committee on public annual accounts reporting of TVEL JSC expresses gratitude to everybody who showed interest to the Company's activities after having familiarized with the Report.

Statement on Public Assurance of the Report

Introduction

TVEL JSC management (main company of the FC with ROSATOM State Corporation, hereinafter – "TVEL FC") contacted us with an offer to assure the 2013 Annual Report of the Fuel Company (hereinafter – "the Report") in terms of completeness and relevance of information disclosed therein, and to assess the performance of management in response to recommendations and remarks of stakeholders.

Draft Report Assurance Procedure

We are sufficiently competent and skilled in the sphere of corporate liability, sustainable development and non-financial reporting.

We hereby confirm that we are acting independently and undertake to be objective in our assurance, thereby expressing our personal expert opinion rather than the opinion of companies we represent. No remuneration has been received from TVEL FC for our efforts and time invested this project.

Our conclusion is based on the study of two versions of the 2013 Report (Draft Report for Public Consultation and the final version) and the analysis of information obtained in the course of dialogues and public consultations (presentations, minutes of the events, table of comments). In addition, we and our representatives were allowed to participate in the dialogues and public consultations dedicated to the Draft Report in December 2013 – April 2014 and freely express our opinion on the matters discussed.

We are not aware of any facts that compromise reliability of data set forth in this Report. However, checking of the data collation system and verification of reliability and completeness of information is not the subject matter of public assurance.

Results of our work are formalized in this Statement wherein the opinions we all agreed upon are presented.

Estimates, Comments and Recommendations

We all share positive opinion about the Report. TVEL FC has prepared an informative and well-structured document that meets our expectations. It sums up the results for 2013 and demonstrates the dynamics over the period of three years. Detailed description of the value creation process, business model, capitals (resources) used and performance results definitely contribute greatly to the merit of this Report. It is our opinion that the topics prioritized by the management and stakeholders of the Company, such as "Social Capital Management of TVEL FC" and "Innovative Potential as Development Basis of TVEL FC" are fully disclosed.

Another obvious advantage hereof is that this Report serves as a presentation of all key performance indicators with respect to reporting in the sphere of sustainable development GRI G3.1, public reporting indicators of ROSATOM State Corporation, and compliance with IIRC recommendations. We would point out the constructive nature of stakeholders engagement demonstrated by the management in the course of preparation hereof and during the dialogues and public consultations, as well as top quality organization of these events.

Relevance of Information

It is our opinion that this Report covers all topics that are essential to the stakeholders, both in terms of key business and in terms of social, environmental and economic aspects of

sustainable development. The information that is most essential for proper understanding of the TVEL FC prospects can be found in sections of this Report dedicated to disclosure of information about the development strategy and performance of the Company in terms of conversion of the capitals it uses. In addition to these merits of the Report, we would also specifically mention the description of value creation process at TVEL FC and the relationship between the Company's strategy and its performance results and environmental impact.

Complete and Relevant Information

In our opinion, this Report contains relevant information that is sufficiently complete for proper understanding of the current state and prospects of the Company by the stakeholders.

Company's Response to Comments and Recommendations of Stakeholders

The Company has duly noted recommendations of the stakeholders in the minutes of dialogues and public consultations, and conducted thorough analysis and used them in the final version of the Report and in its activities. Recommendations of stakeholders were used for modification of section "TVEL FC Development Strategy", Section "Environmental Impact (Natural Capital)", Section "Place of TVEL FC on the Global Market", and Section "Innovative Activities in Non-Nuclear Industry".

Hereby we would confirm that all our suggestions are set forth in the Table of Comments of Stakeholders (Appendix No. 3 to the Report).

TTherefore, TVEL FC has demonstrated a responsible approach to implementation of requirements set forth in Public Reporting Policy of ROSATOM State Corporation, and showed constructive attitude to wishes and suggestions of stakeholders.

Noting the traditionally high quality of TVEL FC stakeholders engagement, we hope that the experience accumulated in the course of the dialogue and public consultations will be fully taken into account and applied in the future.

Director of the Institute for Development of NRNU ME Phi	E.M. Glagovsky
Head of the Federal Service for Environmental, Technological and Nuclear Supervision	A.I. Kislov
Executive Director of the Association of Closed Administrative Territorial Unit for Nuclear	A.I. Makarenko
Secretary of the CC RPRAEP	A.G. Vanichkin
Deputy Director for Research and Development, Vice-President of the Russian Society for Non-Destructive Testing and Technical Diagnostics (RONKT)	N.R. Kuzelev
Head of Division of the NEC ROSATOM State Atomic Energy Corporation	O.I. Linyaev
Deputy Head of Electrostal Urban Okrug Administration	V.P. Davydov
Member of Public Council of ROSATOM State Corporation. Member of the Board of the Center for Russian Ecological policy	V.F. Menshikov
Chairman of the All-Russian Public Children's Environmental Movement "Green Planet", member of the Academy of Medical Sciences	M.V. Medvedeva
Head of the Center for Corporate Social Responsibility and Non-financial Reporting of the Russian Union of Industrialists and Entrepreneurs	E.N. Feoktistova
Executive Director of International Public Ecological Organization "Greenlight"	O.V. Plyamina