

*COMPETITIVE OFFER FOR THE SALE OF 75% STAKE IN JSC "KVARTS"*

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***INFORMATION MEMORANDUM AND  
COMPETITIVE BID***

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***SALE OF STATE STAKE IN JSC "KVARTS" TO FOREIGN  
INVESTORS***

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**Kuvasay city, 2015**

# **COMPETITIVE OFFER FOR THE SALE OF 75% STAKE IN JSC "KVARTS"**

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# ***COMPETITIVE OFFER FOR THE SALE OF 75% STAKE IN JSC “KVARTS”***

## ***I. PROFILE OF THE JOINT STOCK COMPANY***

### **GENERAL INFORMATION**

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1. Enterprise name: Joint stock company «KVARTS».
2. Postal and legal address of the enterprise: 150900, Republic of Uzbekistan, Fergana region, Kuvasay town, str. Mustaqillik 2A
3. Subordination of the enterprise, higher authority: Joint stock company «Uzqurilishmateriallari».
4. Main activity: production and design of glass containers, production of polished sheet and tempered glass.
5. Asset structure: state share – 99, 91%, share of individuals – 0, 09%.
6. Bank details: current account 20210000500214148001 in Kuvasay town branch of JSCB “Agrobank” /MFO 00517, INN 200124765.
7. Names, phones, faxes of the enterprise management:

Chairman of Board – A.A. Pulatov

Production director – S.S. Tursunbayev

Chief engineer – M.G. Isroilova

Head accountant – D.Kh. Yakhyayev

tel. 0(373)373-27-64

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website: www.kvarts.uz

## ***COMPETITIVE OFFER FOR THE SALE OF 75% STAKE IN JSC "KVARTS"***

### **Location, availability and accessibility of production and transport infrastructure, and labor force**



The total area of JSC "Kvarts" comprising industrial and non-industrial facilities is 50, 6 hectares.

The company is located in the industrial zone of eastern part of the town of Kuvasay, on a plain, 3 000 meters to the west of Kuvasay railway station.

JSC "Kvarts" is separated from residential areas by the distance of more than 300 meters.

The industrial site of the enterprise is provided with railroad tracks, which are adjacent to the railway station Kuvasay of the state joint stock railway company "Uzbekiston Temir Yollari".

The relief of the industrial area is calm, the climate is sharply continental, characterized by hot summers and relatively mild winters. The prevailing wind direction is western.

Health care of the employees is provided in the existing health and recreation center located on the enterprise premises.

Catering for the employees is provided in the canteens of the plant.

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# ***COMPETITIVE OFFER FOR THE SALE OF 75% STAKE IN JSC "KVARTS"***

## **GOALS AND OBJECTIVES**

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In accordance with the Decree of the President of the Republic of Uzbekistan dated 28.04.2015 № PP-2340 "On measures to increase the share and the value of private property in the economy", in order to promote foreign investment, dramatically increase the level and role of private property in the economy by improving the processes of privatization and sale of state shares and assets in the authorized capital of enterprises to private investors, primarily foreign ones, and on this basis to ensure the modernization and technological renovation of production, setup of production competitive on the domestic as well as world markets, joint-stock company "Kvarts" was approved to be included in the list of joint stock companies, which are subject to sale of 75% of the share of state and economic management bodies to strategic foreign investors.

### ***II. Description of the company***

Joint-stock company "Kvarts" was created in 1975. The main activity of the company is the production of glass products: float and tempered glass, glass bottles and jars. The enterprise has also mastered the production of ceramic products for its own use and production of refractory bricks.

By order of the State Property Committee of the Republic of Uzbekistan № 26k-PO dated 31.01.1995, the Production Association "Kvarts" was transformed into JSC "Kvarts".

In accordance with the Law of the Republic of Uzbekistan № ZRU-370 dated 06.05.2014 "On introducing amendments and addenda to the Law of the Republic of Uzbekistan" On joint-stock companies and protection of shareholders' rights" the organizational and legal form of the company was changed to JSC "Kvarts".

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## **COMPETITIVE OFFER FOR THE SALE OF 75% STAKE IN JSC "KVARTS"**

### **KEY EVENTS**

1975	Introduction of the glass jars manufacturing facility
1978	Introduction of the glass bottles manufacturing facility
1993	Introduction of construction glass manufacturing facility
2002	Reconstruction of the float glass production with the participation of the Italian company "Techint"
2005	Launch of a new line for the production of glass containers on the equipment of the German company "Emhart Glass"

**Authorized capital of the enterprise** - 23,963,940,000 soum.

The authorized fund is divided into 23,963,940 shares of 1 000 soum each, which are allocated as follows:

- Centre for management of state assets of the State committee of Uzbekistan on privatization, demonopolization and competition development (99.91%) - 23,942,490 shares of the authorized fund of JSC "Kvarts";

- Individuals (0.09%) - 21 450 shares of the authorized fund of JSC "Kvarts".

The quantity of shareholders filed in the register - 44, among which the quantity of shareholders included in the list of shareholders entitled to participate in the annual general meeting - 44.

Information on the major shareholders holding more than 5% of the voting shares of the company - GKK of the Republic of Uzbekistan. Centre for management of state assets of the State committee of Uzbekistan on privatization, demonopolization and competition development (99.91%) - 23,942,490,000 soum. The state representative - Centre for management of state assets of the State committee of Uzbekistan on privatization, demonopolization and competition development.

## ***COMPETITIVE OFFER FOR THE SALE OF 75% STAKE IN JSC "KVARTS"***

### **ORGANIZATIONAL AND LEGAL STRUCTURE**

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Organizational and legal structure of "Kvarts" is a three-tier management structure, which is headed by General meeting of shareholders (diagram attached).

The structure of the company's management: The highest person in the executive body of the Company is the Chairman of the Management Board, the aims and objectives of whom are determined in accordance demands of the Supervisory Board and the General Meeting of Shareholders.

The management of the enterprise is carried out by the Management Board of the company.

The Board consists of:

- Chairman of the Board;
- Production Director;
- Director of Finance and Marketing;
- Chief Accountant;
- Chief Engineer;
- Chief Power Engineer;
- Deputy. Ch. Engineer;
- Deputy. Ch. Mechanics;
- Head of hollow glass shop;
- Head of the dosing and mixing plant
- Senior engineer of production and technical department responsible for rationing.

Audit of financial and economic activities of the company is carried out by Internal audit service. The Internal audit service is subject to the Supervisory board.

Chief accountant is subject to the Chairman of Board.

Production Director Service consists of: Department of Coordination of Production, services of chief engineer, chief power engineer, chief mechanic, technology department, production and auxiliary shops.

Service of Director for Finance and Sales consists of: chief accountant, planning and economic department, the department of labor and wages, both internal and external procurement, export and work with overseas customers, domestic sales, logistics and transport, management of material parts.

## **COMPETITIVE OFFER FOR THE SALE OF 75% STAKE IN JSC "KVARTS"**

The following services are managed by the Chairman of the Board, besides the directors: the chief of security, management of corporate relations with shareholders, departments of quality control and standards compliance, information technology, office of personnel management, legal service, office manager, employees catering service, health and recreation center, administrative and economic department, department of capital construction.

As of 01.01.2015, the average quantity of enterprise employees was 2062 persons (for reference: the average payroll quantity for the year - 2 101 people, paragraph 1 line 101 of the report 1-mehnat shakli for 2014).

### **Number of employees for 2014 by category**

<b>№</b>	<b>Category of personnel</b>	<b>Payroll quantity</b>
1.	Management	110
2.	Production personnel – managers	107
3.	Production personnel – workers	1931
4.	Experts	110
5.	Technical staff	81
6.	Auxiliary personnel	131
	<b>Total for the enterprise</b>	<b>2470</b>

The average salary for 2014 amounted to 1,241,921 soum, for December 2014 1 670 000 soum.

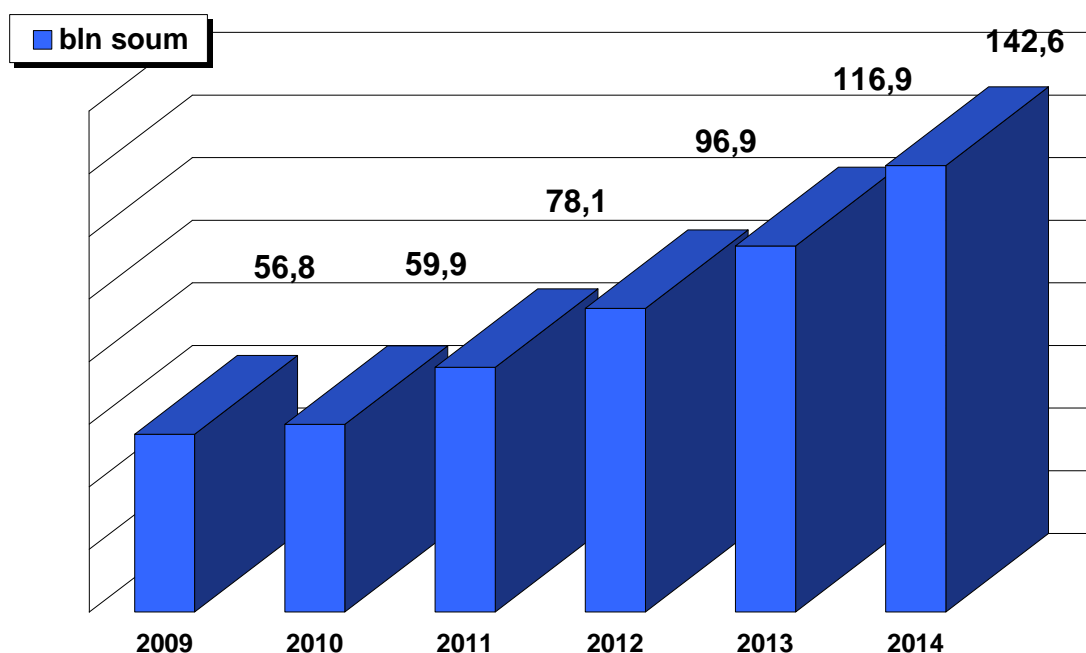
### **Wages by category in 2014**

<b>№</b> <b>п/п</b>	<b>Category of personnel</b>	<b>Average salary for 2014 (soum)</b>	<b>Average salary for December 2014 (soum)</b>
1.	Management	20 885 000	1 738 000
2.	Production personnel – managers	2 235 238 400	1 740 000
3.	Production personnel – workers	21 720 892 300	1 810 074
4.	Experts	1 917 041 000	159 753 000
5.	Technical staff	1 301 703 000	108 475 000
6.	Auxiliary personnel	1 591 688	132 640
	<b>Total for the enterprise</b>	<b>27 197 351 388</b>	<b>273 648 714</b>



## COMPETITIVE OFFER FOR THE SALE OF 75% STAKE IN JSC "KVARTS"

Over the past 5 years, the volume of production rose by 2.5 times from 56, 8 billion soum in 2009 to 142,6 billion soum in 2014.



Goods production figure at the end of 2014 was 142.6 billion soums, planned figure for the production was 102.3 billion soums (139.4% of the plan). The growth rate when compared to the corresponding period last year - 122%. Net profit of 25 612 mln. soum was posted.

### Key financial indicators JSC "Kvarts» during 2009-2014

Article	mln. soum					
	2009	2010	2011	2012	2013	2014
Product output	56 790,8	59 931,3	78 150	96 893,4	116 911,8	142 642,8
Net proceeds from sales	62 299,8	69 513,6	79 938	106 572,5	117 123,9	139 768,7
Cost of sales	40 104,9	43 244	54 891,6	76 442	81 472	82 562,6
Gross profit	221 948,8	26 269,4	25 046,3	29 630,5	35 651,6	57 206,1
Expenses of the period	10 477	12 600,3	17 328	19 286	23 296,3	28 658,6
Pre-tax profit	13 168,5	20 464	18 969	10 673	14 964,7	30 347
Income tax	1 559,6	1 874	1 334,2	1 297,6	1 663,7	2 430,4
Net income	11 082	17 746,4	17 302	8 883	12 236,9	25 612

***III. SETUP OF PRODUCTION***

**Production workshops**

include:

float glass workshop;

glass containers workshop area № 1 ;

glass containers workshop area № 2;

glass containers workshop area № 3;

dosing and mixing plant.

**Auxiliary shops:**

station of protective atmospheres;

compressor shop;

shop of refractory products;

metal molds plant;

packing materials shop;

control and measurement tools and automation shop;

quality control and standards compliance department;

power workshop;

electric shop;

repair and construction site;

installation and commissioning site;

logistics and transport service;

garages.

## ***COMPETITIVE OFFER FOR THE SALE OF 75% STAKE IN JSC "KVARTS"***

### **Float glass workshop**



The technological process of float glass production consists of the following operations:

- preparation of the batch;
- cooking glass;
- forming glass tape;
- annealing float glass;
- cutting, transportation and cutting out of glass;
- packing sheet glass;
- warehousing of products.

Melting of glass is carried out in the bath of glass melting furnace of continuous operation, which is cross-fired, co-current, and regenerative. The process of cooking glass takes place at temperature of 800-1600 °C.

The process of forming the glass ribbon comprises thermoforming glass ribbon by directional spreading molten glass on molten tin, and final consolidation of the glass ribbon. The process takes place at a glass temperature 1060-1000 °C. A protective gas atmosphere (nitrogen and hydrogen mixture) is used to protect the molten metal from oxidation in the molten bath.

The process of annealing flat glass represents the thermal processing aimed at eliminating internal residual stresses in the glass.

Line cutting is made on the conveyor, where the glass is cut, broken up and edges of the glass tape are emarginated.

## ***COMPETITIVE OFFER FOR THE SALE OF 75% STAKE IN JSC "KVARTS"***

### **Glass containers shop**



The technological process of glass containers production consists of the following operations:

- preparation of the batch;
- cooking glass mass (glass mass production);
- molding;
- annealing of glass containers;
- quality control of glass products;
- packaging of the glass containers;
- warehousing of the products.

Melting of glass is carried out in the bath of glass melting furnace of continuous operation, which is cross-fired, co-current, and regenerative. The glass melting furnace is to be provided with batch and cullet. Melting the glass in furnaces is carried out according to the technological regime.

The process of glass cooking is conventionally divided into 5 stages of glass melting:

- forming of silicate;
- forming of glass;
- melting glass;
- homogenization;
- cooling.

The temperature of the forehearth is  $1150 \pm 50^{\circ}\text{C}$ . Glass from the forehearth channel enters the feeders of glass-forming machines.

Feeder of the glass forming machines is designed for the final preparation of glass for the production, molding and providing at a certain moment of glass drops with a predetermined temperature, weight, configuration and speed. Drop weight should correspond to the mass of the product.

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Forming of the glass containers occurs on glassware forming machines of types VV-7, 2PVM-12A, and PVM-3.

Annealing glass is thermal processing of glass for the purpose of relieving residual stresses in the glass.

The annealed finished products are fed onto a conveyor equipped with a control screen. Acceptable products are packaged in packing machines on each line.

Packaged acceptable glass containers are transported to the warehouse of finished products by means of cradle assembly line.

The need for funding for the purchase of goods and materials, components, parts and lubricants for maintenance in operational condition of the equipment at hand at the glass containers shop amounts to 20.0 mln. soum.

## ***COMPETITIVE OFFER FOR THE SALE OF 75% STAKE IN JSC "KVARTS"***

### **Auxiliary shops**

Compressor shop is designed to provide compressed air to the plant units.

To this end, the shop is equipped with 6 pcs. of air compressors (compressors of types 4VM-10/ 100-8 - 2 pcs., 4VM-10/125 - 1 pc., 2VM-10-50/9 - 1 pc., ZH700-6-7- 2 pcs.). Lubrication system of the compressors is filled with oil, except for compressor ZH700-6-7, which uses a new cost-effective technology that does not use a compressor oil.

### **Electric shop**

Power supply of JSC "Kvarts" is carried out by two 35 kV overhead lines from substation of Kuvasay town power plant, whose length VL is 1.2 km, wire size AS95mm<sup>2</sup>.

Main substation of the plant has a power of 2x10 000 kW 35/6 kV. The company has 10 substations 6 / 0.4 KV each.

1. The substation №2 with 2x1000 kW 6 / 0.4 kV transformer provides power to the glass containers shop area № 1 and the electric shop.
2. The substation № 3 with 3x1000 kW 6 / 0.4 kV transformer provides power to the glass containers shop area № 2, transport department, corps of engineers.
3. The substation № 4 with 2x1000 kW 6 / 0.4 kV transformer provides power to the dosing and mixing plant and fuel station.
4. The substation № 5 with 2x1000 kW 6 / 0.4 kV transformer provides power to the float glass workshop, central plant laboratory, as well as corps of engineers of the float glass shop.
5. The substation № 6 with 2x1000 kW 6 / 0.4 kV transformer provides power cooling and compressing shop for own needs, as well as the health and recreation center, wells 2,3,4, and the enterprise management building.
6. The substation №7 with 2x1000 kW 6/0.4 kV transformer provides power to metal molds shop, repair and construction site, and power shop.
7. The substation № 8 with 2x1000 kW 6/0.4 kV transformer provides power to the glass containers workshop area № 3, Sales department, enterprise management building, sewage treatment plants, and cooling towers.
8. The substation № 9 with 2x1600 kW 6/0.4 kV transformer provides power to the float glass plant shops.
9. The substation № 9a with 2x1600 kW 6/0.4 kV transformer provides power to the glass tempering shop, catering service, well № 5, glass loading shop, and the stadium.
10. The substation № 10 with 2x1000 kW 6/0.4 kV transformer provides power to the shop of protective atmospheres, repair and construction site, installation and commissioning site, tractor park, and the garages.

# COMPETITIVE OFFER FOR THE SALE OF 75% STAKE IN JSC "KVARTS"

## INFRASTRUCTURE



### Gas supply

The gas supply is delivered by the Mouyan power plant, Lagan village through the 4.3 km long gas pipeline D-159 with a pressure of 4.0 kgf/cm<sup>2</sup> to the factory gas allocating stations № 1,2.

with a pressure of 0,6/0,4 kgf/cm<sup>2</sup> is supplied to the glass containers shop area № 1

with a pressure of 0,6/0,4 kgf/cm<sup>2</sup> is supplied to the glass containers shop area № 2

Ceramic shop is powered up to the entrance of goods emptying site of glass container shop area № 1

With a pressure of 0,6/0,3 kgf/cm<sup>2</sup>.

Boiler plant with a pressure of 0,6/0,3 kgf/cm<sup>2</sup>.

Dosing and mixing plant from the gas allocation station of the factory №1 with pressure of 0,6/0,3 kgf/cm<sup>2</sup>

Metal molds shop from the Dosing and mixing plant with the pressure of 0,6/0,2 kgf/cm<sup>2</sup>

Float glass workshop from the gas allocation station of the factory №1 with the pressure of 1,2/0,6 kgf/cm<sup>2</sup>.

Protective atmospheres station with the pressure of 1,6/0,7 kgf/cm<sup>2</sup>.

### Characteristics of natural gas

Name	Quality indicators	Norm
1. Natural gas	1. Methane, %, not less than	94,2-94,5
	2. Ethane, %	2,4-2,7

## ***COMPETITIVE OFFER FOR THE SALE OF 75% STAKE IN JSC "KVARTS"***

### **Water supply**

Circulation scheme of water for the production needs of the enterprise is carried out through 5 WRC (water reverse cycle).

In the 3rd working cycle, cooling tower 3 - 3 sections, 2 cooling tower - 2 sections. Make-up is provided by artesian well №2, №3 and №4, which are located on the premises.

Process water in the form of 5 WRC is designed to supply water to the technological workshops of glass containers workshop areas № 1, 2, 3, float glass workshop, cooling and compressor shop, protective atmospheres station, metal molds shop. Performance of the cycle is 3 thousand m<sup>3</sup> / day. With an inlet temperature of +29<sup>0</sup>C, and output temperature 38<sup>0</sup>C.



**COMPETITIVE OFFER FOR THE SALE OF 75% STAKE IN JSC "KVARTS"**

**Sources of raw materials**

**CHARACTERISTICS OF THE MAIN RAW MATERIALS**

Raw material or semi-product	GOST, TU, regulation, standards or methods of preparation	Indexes	Restricted value
Unenriched quartz sand	GOST 22551-77	Mass fraction of silicon oxide, % no less than:	95
		Mass fraction of ferric oxide, % no less than:	0,07
		Mass fraction of aluminum oxide, % no less than:	2,0
		Mass fraction of moisture, % no less than:	7,0
		Mass fraction of sieve residue №8, no more than %	0,5
Dolomite	GOST 23672-79	Mass fraction of magnesium oxide, % no more than:	18,0
		Mass fraction of calcium oxide, % no more than:	34,0
		Mass fraction of ferric oxide, % no less than:	0,25
		Mass fraction of silicon oxide, % no less than:	2,5
		Mass fraction of aluminum oxide, % no less than:	2,0
		Mass fraction of moisture, % no less than:	7,0
Soda ash type Б	GOST 5100-85	Mass fraction of sodium carbonate, % no less than:	95,0
		Loss on ignition (at 270-300°C), % no more than:	1,5
Sodium sulfate type Б	GOST 6318-77	Mass fraction of sodium sulfate, % no more than:	94,0
		Mass fraction of sodium chloride, % no more than:	2,0
		Mass fraction of calcium sulfate, % no more than:	1,0
		Mass fraction of moisture, % no more than:	7,0
Limestone IK-51-0,3	GOST 23671-79	Mass fraction of magnesium oxide, % no more than:	2,5
		Mass fraction of calcium oxide, % no more than:	51,0
		Mass fraction of ferric oxide, % no less than:	0,3
		Mass fraction of silicon oxide, % no less than:	2,5
		Mass fraction of aluminum oxide, % no less than:	1,5
		Moisture content, % no more than:	7,0

## **COMPETITIVE OFFER FOR THE SALE OF 75% STAKE IN JSC "KVARTS"**

### **SUPPLIERS AND SUPPLY VOLUMES (2009-2014y)**

(in tons)

<b>Title</b>	<b>2009 y</b>	<b>2010 y</b>	<b>2011 y</b>	<b>2012 y</b>	<b>2013 y</b>	<b>2014 y</b>
Unenriched quartz sand	89 373,2	96 435,5	119 327,3	86 189,6	113 816,2	118 900,5
Dolomite	30 347,5	17 913,3	33 328,4	22 421,93	28 632,7	34 593,6
Soda ash of type Б	28 004,4	26 619,4	32 082,0	40 673,14	34 560,5	24 273,72
Sodium sulfate of type Б	465,0	839,0	1 134,72	360,0	660,0	1 020
Limestone IK-51-0,3	5 797,6	8 953,6	5 935,1	8 294,14	9 206,0	7 048,65

Quartz sand suppliers is OLL «Korkhonayi Borborkuni va naqliyoti Jabbor Rasulov»(Tajikistan).

Dolomite supplier – PM «Yozovon-I» Kashkadarya region.

Soda ash - Kungrad soda plant

Sodium sulfate – Republic of China

Limestone – OLL «Olimpik Gigant Khamkor» Andijan reg.

## COMPETITIVE OFFER FOR THE SALE OF 75% STAKE IN JSC "KVARTS"

### Ecology and environmental effect of Dosing and mixing plant, float glass workshop and glass containers workshop.

Combustion gases, going out from the furnaces and mainly having nitric oxide and carbone dioxide, are discharged according to the permitted norm.

Inorganic dust, forming at batch preparation and transportation, is caught by aspirational system and are reprocessed.

#### Gas emission

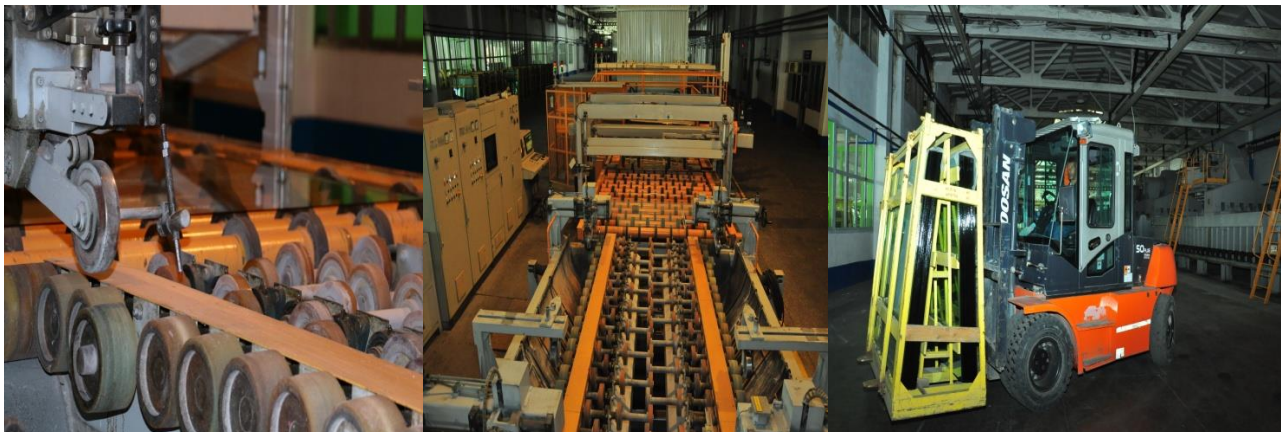
Equipment and department	Quantity of emission sources	Total volume of emission gases, m <sup>3</sup> /h	Periodicity	Emission characteristics		
				Temperature, °C	Emission content, mg/m <sup>3</sup>	Permitted quantity of hazardous substances, discharging to atmosphere, kg/h
1	2	3	4	5	6	7
1. Glass melting furnace MVP section №1	36	7,3602	constantly	315	Carbon dioxide Nitrogen dioxide	3,1827 0,861
2. Annealing furnace MVP section №1	37	0,6869	constantly	215	Carbon dioxide Nitrogen dioxide	0,0758 0,0205
3. Feeder MVP section №1	38	1,256	constantly	225	Carbon dioxide Nitrogen dioxide	0,136 0,041
4. Glass melting furnace MVP sec.№2 feeder 1,2 and annealing furnace 1,2	134	3,6797	constantly	420	Carbon dioxide Nitrogen dioxide	1,9038 0,574
5. Glass melting furnace MVP sec.№3	43	7,6302	constantly	430	Carbon dioxide Nitrogen dioxide	1,23 0,37
6. Annealing furnace MVP sec.№3	44	2,355	constantly	320	Carbon dioxide Nitrogen dioxide	0,087 0,0262
7. Batch charging unit in PPS	48	1,23088	constantly	20	Batch dust	0,107
8. Cullet charging unit in PPS	49	1,08016	constantly	20	Glass dust	0,0848
9. Sheet glass cutting unit in PPS	50	1,53232	constantly	20	Glass dust	0,0775
10. Glass melting furnace in PPS	51	7,6302	constantly	520	Carbon dioxide Nitrogen dioxide	0,072 0,082
11. Melting bath (annealing) in PPS	52	2,355	constantly	180	Carbon dioxide Nitrogen dioxide	2,7197 0,82

## COMPETITIVE OFFER FOR THE SALE OF 75% STAKE IN JSC "KVARTS"

### IV. ENTERPRISE PRODUCTS

*Polished sheet glass*

GOST 111-2001



Sheet glass is used in building industry, in furniture manufacturing and in production of car glasses.

Production capacity on flat glass is 10 mln. m<sup>2</sup> at fixed 2 mm calculation

#### Physical and mechanical characteristics of flat glass

Characteristics	Value
Density (at 18°C)	2500 kg/m <sup>3</sup>
Compressive strength	700-900MPa
Tensile strength	30 MPa
Bending strength	15 MPa
Thermal conductivity	1,0 Watt/(m·K)
Modules of elasticity (Young modulus)	7x10 <sup>10</sup> Pa
Poisson ratio	0,2
Temperature coefficient of linear expansion (at the range from 20 to 300°C)	9,0x10 <sup>-6</sup> K <sup>-1</sup>
Heat absorption capacity	720 joule/(kg·K)
Softening temperature	600°C
Mohs hardness	6 unit
Heat-transfer coefficient	5,8 Watt/(m <sup>2</sup> ·K)
Light refraction coefficient	1,5
Light reflection coefficient	0,08

## ***COMPETITIVE OFFER FOR THE SALE OF 75% STAKE IN JSC "KVARTS"***

### ***Glass container***

Preserve jars according to **GOST 5727.1, GOST 5717.2**

Glass bottle according to **GOST 32131-2013**



Glass container is used in food industry for food-canning and beverage production.  
Production capacity of glass jars is 269 mln. pieces at fixed 0.5 l calculation  
Production capacity of glass bottles is 110 mln pieces at fixed 0.5 l calculation

#### Physical and mechanical indices of glass bottles

<b>Characteristics</b>	<b>Acceptable limits</b>
Volume 200-1750 sm <sup>3</sup>	215±7 1775±15

#### Physical and mechanical indices of glass jars

<b>Characteristics</b>	<b>Acceptable limits</b>
Volume 250-3000 sm <sup>3</sup>	280±10 3200±50

## **INTEGRATED MANAGEMENT SYSTEM**

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According to a phased program of developing, implementing and certification of quality control system in accordance with a requirements international standards ISO 9001:2009, it is carried on an improvement of the quality control system – new analyze methods of process performance has been introducing, regular estimation of customer’s satisfaction has been carrying out, a training of internal auditors and the staff has been conducting, as well as, members of top managements of the company are also taught in proper courses.

### ***V. PRODUCTION SALE OVERVIEW***

JSC “Kvarts” products are in needing both domestic and external market. Main consumers of glass containers are the alcoholic-beverage production companies and canning factories. Flat glass mainly is used in building industry and for further reprocessing. Tempered glass is in demand for car glass production.

At present, JSC “Kvarts” is only enterprise in the Republic, which produces flat glass in colorless and in different colors (bronze, green and blue).

It is a monopolist in production of building glass in domestic market and covers more than 60% needs; this figure makes up 95% at glass jar production and up to 50 is at glass bottles.

On ongoing basis market research is carried out for product sale:

In order to improve the product sale there has been doing advertisement through media, web-site of the company is working and it has been updating frequently, there has been issued advertising pamphlets, calendars, pens and distributed to prospective consumers. On ongoing basis we are searching a new sale market.

Marketing research of sale alongside the countries of CIS has been studying: production, import, export, pricing policy. Market in Russia, Kazakhstan, Kyrgyz Republic and Tajikistan has been learnt.

**COMPETITIVE OFFER FOR THE SALE OF 75% STAKE IN JSC "KVARTS"**

**Product sale in 2014 year and forecast for 2015 year**

**Product sale in 2014 year**

In 2014, prognosis on glass container production was 170 mln. pcs at 0.5 l calculation, while actual sale shows 176.85 mln. pcs. at 0.5 l calculation, which, compared to the prognosis, it consists 104.3%. In flat glass production, the real output exceed from expected figure to 6,8% and amounts to 9757 thousand m<sup>2</sup> (at 2,0 mm calculation), where prognosis was 9135 thousand m<sup>2</sup>(at 2,0 mm calculation). 2159,2 thousand dollars of flat glass has been sold to an abroad, which consists 64% of expected number

**Sales of products in 2014**

№	Title	Unit of measure		Prognosis to 2014 г.	Real output in 2014 г.	done %
<b>Flat glass</b>						
<b>I</b>	<b>Sale total</b>	<b>2 mm cal.</b>	<b>thousand m<sup>2</sup></b>	<b>9 135,00</b>	<b>9 757,00</b>	<b>106,8</b>
		<b>Sum of money</b>	<b>mln.soums</b>	<b>34 899,20</b>	<b>66 302,15</b>	<b>189,98</b>
1	Governmental order	<b>2 mm cal.</b>	<b>thousand m<sup>2</sup></b>	1 517,80	1 279,40	84,29
		<b>Sum of money</b>	<b>mln.soums</b>	5 804,93	1 976,53	34,05
2	Exchange sale	<b>2 mm cal.</b>	<b>thousand m<sup>2</sup></b>	4 550,00	7 333,50	161,18
		<b>Sum of money</b>	<b>mln.soums</b>	17 401,80	53 237,39	305,93
3	Market fund	<b>2 mm cal.</b>	<b>thousand m<sup>2</sup></b>	3 057,20	1 184,84	38,76
		<b>Sum of money</b>	<b>mln.soums</b>	11 692,47	11 088,22	94,83
<b>Glass jars</b>						
<b>I</b>	<b>Sale total</b>	<b>Agreed calculation</b>	<b>thous. pcs</b>	<b>306 350,00</b>	<b>284 468,72</b>	<b>92,86</b>
		<b>Sum of money</b>	<b>mln. soums</b>		<b>58 498,42</b>	
1	Governmental order	<b>Agreed calculation</b>	<b>thous. pcs</b>	153 350,00	229 845,97	<b>149,88</b>
		<b>Sum of money</b>	<b>mln. soums</b>		48 132,19	
2	Exchange sale	<b>Agreed calculation</b>	<b>thous. pcs</b>	153 000,00	28 699,16	<b>18,76</b>
		<b>Sum of money</b>	<b>mln. soums</b>		5 981,82	
3	Export	<b>Agreed calculation</b>	<b>thous. pcs</b>		25 923,59	
		<b>Sum of money</b>	<b>thous.\$</b>		2 141,12	
		<b>Sum of money</b>	<b>mln. soums</b>		4 384,40	
<b>Glass bottles</b>						
<b>I</b>	<b>Sale total</b>	<b>Agreed calculation</b>	<b>thous. pcs</b>	<b>83 900,00</b>	<b>91 639,67</b>	<b>109,22</b>
		<b>Sum of money</b>	<b>thous.\$</b>		<b>18,03</b>	
		<b>Sum of money</b>	<b>mln.soums</b>		<b>41 745,49</b>	
1	Market fund	<b>Agreed calculation</b>	<b>thous. pcs</b>	83 900,00	91 499,67	<b>109,06</b>
		<b>Sum of money</b>	<b>mln.soums</b>		41 709,22	
2	Export	<b>Agreed calculation</b>	<b>thous. pcs</b>		140,00	
		<b>Sum of money</b>	<b>thous.\$</b>		18,03	
		<b>Sum of money</b>	<b>mln.soums</b>		36,27	
<b>Sum of money</b>			<b>mln.soums</b>		<b>166 546,05</b>	

## **COMPETITIVE OFFER FOR THE SALE OF 75% STAKE IN JSC “KVARTS”**

### **Activities on expanding product sale**

1. Active participation on exhibitions and trade fairs, arranged both in the Republic and abroad.
2. Carrying regular advertising affairs, such as via media and the Internet.
3. Carrying marketing research work in cooperation with ministry of external economic relations and sale of the Republic of Uzbekistan
4. Regular updating advertising publications (in Uzbek, Russian and English languages) and systematic updating advertising parts in the official site of the company.

### **Sale expectation in 2015**

		<b>Title</b>	<b>Unit of measure</b>		<b>Total</b>
<b>SALE</b>	<b>including</b>	<b>All glass products</b>	Glass container	Flat glass	<b>mln. soums</b>
			<b>mln.pcs</b>	<b>thous. m<sup>2</sup></b>	<b>148 345,5</b>
			<b>186</b>	<b>12 670</b>	
		Export of glass products	<b>Sum of money</b>	<b>thous. \$</b>	
<b>mln. soums</b>				<b>8 625 000,0</b>	

## **GLASS PRODUCT SALE IN 2010/14 AND GLOBAL TENDENCY OF SUPPLY**

Products of SC “Kvarts” are mainly sold in domestic market. Main consumers of glass containers are the alcoholic-beverage production companies and canning factories. Flat glass mainly is used in building industry and for further reprocessing. Tempered glass is in demand for car glass production.

At present, SC “Kvarts” is only enterprise in the Republic, which produces flat glass in colorless and in different colors (bronze, green and blue). Additionally, flat glass is imported to the country from Russia, China and Kyrgyz Republic.

It is a monopolist in production of building glass in domestic market and covers more than 60% needs; this figure makes up 95% at glass jar production and up to 50% at glass bottles.

On ongoing basis market research is carried out for product sale.

During the period between 2013 and 2018 year, world consumption on glass products will be increased reasonably; average annual growth is 1.5%, till 3600 thousand USD in 2018.

<b>World glass consumption</b> (period between 2013-2018 y) mln. USD			
	2013	2014 (fact)	2018 expecting
Glass products	3 615,0	2 159,2	3 700,0



## ***COMPETITIVE OFFER FOR THE SALE OF 75% STAKE IN JSC "KVARTS"***

Consumption growth is anticipating for all glass products;

### **Financing structure of the company:**

The enterprise is supported by its own cash flow, such as tax payment, salary, for obtaining raw materials and spare parts, payment for energy, service payment and dividends.

### **Results of the financial model of the project (Forecast on income and loss for 5 years)**

	<b>mln. soum</b>				
Indicator name	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Net income taking into account commodity exchange prices	144 441,4	153 188,1	153 463,2	145 419,3	162 862,8
Net cost of production	99 291,4	97 785,9	99 926,8	112 956,0	103 297,6
Gross financial result	45 150,0	55 402,2	53 536,4	32 463,3	59 565,1
Expenses of the period, including	28 453,8	29 732,536	30 792,542	31 645,4	33 855,7
Sales expenses	4 749,7	4 749,7	4 749,7	4 749,7	5 124,3
Administrative expenses	5 937,9	6 355,6	6 806,8	7 294,1	7 820,4
Other operational income and loss	17 766,2	18 627,2	19 236,0	19 601,6	20 911,0
Other income from operations	803,7	203,9	209,0	208,5	182,4
Financial result from operations	17 499,9	25 873,6	22 952,8	1 026,4	25 891,8
Income and loss from financial activities	1963,5	2138,6	2327,8	2532,1	2752,7
Interest income	2 189,2	2 364,3	2 553,5	2 757,8	2 978,4
Costs for financial activities	225,7	225,7	225,7	225,7	225,7
Total financial result before taxes	19 463,4	28 012,2	25 280,6	3 558,5	28 644,5
Costs being included in the tax base	135,2	135,2	135,2	135,2	135,2
Taxable income	19 598,6	28 147,4	25 415,8	3 693,7	28 779,7
Income tax	1 567,891	2 251,8	2 033,3	295,5	2 302,4
Other taxes	1 567,9	2 251,8	2 033,3	295,5	2 302,4
Net profit	16 462,853	23 643,8	21 349,2	3 102,7	24 175,0

Note: owing to the cool repair in the float glass workshop in 2018, the net income has been reduced.

## ***COMPETITIVE OFFER FOR THE SALE OF 75% STAKE IN JSC “KVARTS”***

### **SENSITIVITY ANALYSIS AND SCENARIO ANALYSIS**

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The method of sensitivity analysis is widely used due to its simplicity, but there are restrictions in use. For example, if one considers a project to build an enterprise for production of glass containers and method of sensitivity analysis shows that the net income to the greatest extent responds to changes of output, average variable cost and selling price, then conclusion of contracts for the sale of a fixed quantity of products at a specified price taking into consideration the inflation allows to guarantee a certain value of internal rate of return.

Scenario analysis is a method of unformalized description of a separate risk of the project, including an estimate of the sensitivity of the internal rate of return to changes in the factors, and evaluation capability for the joint action of factors.

#### **Enterprise’s strengths and weaknesses**

The enterprise is the country’s sole producer of transparent and tinted float glass. Furthermore, it is leader in the field of glass containers manufacture. Its weakness is its dependency on the climate phenomena and raw materials are brought outside of the Republic of Uzbekistan.

## ***VI. FINANCE PLAN***



Analysis of finance and economic activities of the enterprise show that the activities of the company are satisfactory.

**COMPETITIVE OFFER FOR THE SALE OF 75% STAKE IN JSC "KVARTS"**

**Indicators of enterprise financial performance**

<b>№</b>	<b>Indicator name</b>	<b>Calculation formula</b>	<b>Result for 1 January, 2015 or for 2014</b>
1	Solvency coefficient (liquidity ratio) (C sol), norm not less than 1,25	$C\ sol = A2 / (L2 - LO)$ , where: A2 – current (circulating) assets L2 - liabilities, chapter 2 of the balance liabilities, line 770 LO – long term liabilities, line 490	10,4
2	Working capital ratio, norm not less than 0,2	$WCR = (L1 + Llc2 - A1) / A2$ L1 – sources of equity, total of chapter 1 of balance liabilities, line 480 Llc2 – long term loans and credits, lines 570 and 580 A1 – long term assets, chapter 1 of balance assets, line 130 A2 – current (circulating) assets	0,9
3	Net profit ratio, norm not less than 0,05	$NPR = Pbt / IsB$ Pbt – profit before taxes, line 240 of Report on financial results IsB – average of total balance assets and liabilities	0,32
4	Equity to short term loans ratio, norm not less than 1 or positive dynamics	$Re = E1 / (L2 - LO)$ E1 - equity, total of chapter 1 of balance liabilities, line 480 L2 - liabilities, chapter 2 of the balance liabilities, line 770 LO – long term liabilities, line 490	12,4
5	Rate of utilization of production capacity	$Rpp = Q\ output / Q\ proj.$ Q output - actual volume of output (services) in comparable value terms Q proj. – maximum volume of output (services) in comparable value terms	1,0

Based on the decree of the President of the Republic of Uzbekistan № PP-1623 dated October 4, 2011 "On the Program of priority measures to increase the volume of production and the development of new types of competitive products," № PP-2264 dated November 17, 2014 "On investment program of Uzbekistan for 2015", the company has been implementing the projects listed below:

At present, to increase production, enhance its competitiveness in a tough market environment and reducing the costs of production, necessary to purchase new equipment:

## **COMPETITIVE OFFER FOR THE SALE OF 75% STAKE IN JSC "KVARTS"**

### **Anticipated investment necessities for the next 5 year**

<b>№</b>	<b>Investing and social projects</b>	<b>Approximate cost</b>	<b>Due date</b>
1.	Milling machine of the firm "HAAS" (1set)	300 000 USD	2016y.
2.	Machine for silkscreen decoration in tempered glass production	400 000 EURO	2016y.
3.	4 sectional two drop machine for hollow glass production (2 set)	2 930 000 EURO	2017y.
4.	Magnetic separators for raw material enrichment (5 pcs)	3 504 000 ROUBLE	2016y.
5.	Batch mixers (4 pcs)	8 000 000 ROUBLE	2016y.
6.	Packing machines in glass container production (6 set)	180 000 USD	2016y.
7.	Shot-blast equipment for restoration of form set	150 321,5 EURO	2017y.
8.	Automation of glass melting process and hollow glass production in Hollow glass production zone 3	958 716 ROUBLE	2017y.
9.	Refractory materials and other materials for making cold repair of glass melting furnaces №2 and №3	3 436 064 USD	2016-2017yy
10.	X-ray spectrometry Epsilon 3/Epsilon 3 XL	90 000 EURO	2016y.
11.	Gas analyzer ДАГ-500	141 000 ROUBLE	2016y.
12.	Level gauge for measuring the level of the glass mass (4 pcs)	680 000 ROUBLE	2016y.
13.	Changing the weigh feeders of batch and cullet КДУ-700 kg. (4 set)	56 320 USD	2017y.
14.	Gas chromatograph for ABC Aqilent 7820 A (2 set)	60 000 USD	2017y.
15.	Thyristor regulator (39 pcs)	50 180 ROUBLE	2017y.
16.	Main roller conveyor in an annealing line	17 412 000 ROUBLE	2018y.
17.	Device for measuring a striation of glass (REAM COMPARATOR ITEM:LQ-20)	5 500 USD	2018y.
18.	Reprocessed glass sorting machine and a dryer	606 280 EURO	2018y.
<b>Total</b>		<b>4 037 884</b>	<b>In USD</b>
		<b>30 745 896</b>	<b>In ROUBLE</b>
		<b>4 176 601,5</b>	<b>In EURO</b>
<b>Total in USD *</b>		<b>9 181 713,45</b>	

**\*Note: Investment proposal is calculated according to currency of Central Bank of the Republic of Uzbekistan on 22.09.2015**

At present, to increase production, enhance its competitiveness in a tough market environment and reducing the costs of production, necessary to purchase new equipment:

## **COMPETITIVE OFFER FOR THE SALE OF 75% STAKE IN JSC “KVARTS”**

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<b>№</b>	<b>Investing and social projects</b>	<b>Approximate cost</b>	<b>Due date</b>
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21.	4 sectional two drop machine for hollow glass production (2 set)	2 930 000 EURO	2017y.
22.	Magnetic separators for raw material enrichment (5 pcs)	3 504 000 ROUBLE	2016y.
23.	Batch mixers (4 pcs)	8 000 000 ROUBLE	2016y.
24.	Packing machines in glass container production (6 set)	180 000 USD	2016y.
25.	Shot-blast equipment for restoration of form set	150 321,5 EURO	2017y.
26.	Automation of glass melting process and hollow glass production in Hollow glass production zone 3	958 716 ROUBLE	2017y.
27.	Refractory materials and other materials for making cold repair of glass melting furnaces №2 and №3	3 436 064 USD	2016-2017yy
28.	X-ray spectrometry Epsilon 3/Epsilon 3 XL	90 000 EURO	2016y.
29.	Gas analyzer ДАГ-500	141 000 ROUBLE	2016y.
30.	Level gauge for measuring the level of the glass mass (4 pcs)	680 000 ROUBLE	2016y.
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32.	Gas chromatograph for ABC Aqilent 7820 A (2 set)	60 000 USD	2017y.
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<b>Total</b>		<b>4 037 884</b>	<b>In USD</b>
		<b>30 745 896</b>	<b>In ROUBLE</b>
		<b>4 176 601,5</b>	<b>In EURO</b>
<b>Total in USD *</b>		<b>9 181 713,45</b>	

**\*Note: Investment proposal is calculated according to currency of Central Bank of the Republic of Uzbekistan on 22.09.2015**

For realization above mentioned projects, the company needs an investment of about 9.2 million US dollars.

## ***COMPETITIVE OFFER FOR THE SALE OF 75% STAKE IN JSC “KVARTS”***

Project realization enables to increase the capacity and assortment of the products, reduce energy consumption, as a result, reduce the cost, provide competitive glass products of SC “Kvarts”

### **Analysis of the main risks**

#### **- Technological risks**

Increasing the output to project capacity does not bring about the technological risk.

#### **- Environmental risks**

Environmental risks does not have

At present, the risks on underfunding does not have, because the company is financially stable.

Some risks exist, relating to supply the production with necessary raw materials. Main raw material for glass production is quartz sand and its reserves must be sufficient for at least 105 days. The closest and the most suitable by its quality characteristics and by its chemical composition quartz sand deposit locate in Sogd region of the republic of Tajikistan. Annual consumption of sand is approximately 110 thousand ton, for which 2860 thousand USD is needed. Transportation expenses are more than 5 billion soums. To cover foreign currency purchases on purchasing quartz sand there must be exported products worth at least 5 720 thousand USD. In addition, for obtaining spare parts abroad, about 1 million USD is required. The actual volume of exports each year does not exceed 3 500 thousand USD. Thus, the company is largely in need of state support for currency conversion.

Force majeure risks associated with unforeseen political and economic developments in the global economy, changes in the volume of production and consumption.

**COMPETITIVE OFFER FOR THE SALE OF 75% STAKE IN JSC "KVARTS"****Financial results for the 1 quarter of 2015**

<b>№</b>	<b>Indicator name</b>	<b>Unit</b>	<b>According to the business plan</b>	<b>Факт</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	Net revenue from sales of products (goods and services)	mln. soum	36 641,3	32 673,0
2	Net cost of products sold (goods and services)	mln. soum	25 379,8	20 129,0
3	Gross profit (loss) from sales	mln. soum	11 261,5	12 543,9
4	Expenses of the period, total, including	mln. soum	7 218,1	7 322,5
	Sales costs	mln. soum	1 204,9	993,4
	Administrative costs	mln. soum	1 506,3	1 330,2
	Other operating costs	mln. soum	4 506,9	4 998,9
5	Other operating income	mln. soum	203,9	204,8
6	Profit (loss) from operations	mln. Soum	4 247,4	5 426,2
7	Income from financial operations, total, including:	mln. soum	498,1	472,8
8	Interest income	mln. soum	555,3	504,5
10	Income from differences in currency exchange rates	mln. soum	-	17,9
11	Other income from financial activities	mln. Soum	-	-
12	Expenses from financial activities	mln. Soum	57,2	49,6
13	Profit (loss) from general economic activity	mln. Soum	4 745,5	5 899,0
14	Profit (loss) before taxes on income (profit)	mln. Soum	4 745,5	8 899,0
15	Net profit (loss)	mln. soum	4 017,4	5 007,6

**COMPETITIVE OFFER FOR THE SALE OF 75% STAKE IN JSC "KVARTS"****Balance sheet for 1 quarter 2015**

Articles	At the beginning of the year	At the end of the year
	mln.soum	mln.soum
<b>ASSETS</b>		
<b>I. Long term assets</b>	<b>79 656</b>	<b>79 026,3</b>
1.1 Fixed assets and intangible assets	79 656	79 026,3
<b>II. Circulating assets</b>	<b>79 447,2</b>	<b>85 511,1</b>
2.1 Inventory	26 931	21 094
2.2 Receivables	11 886,3	21 286,8
2.3 Short term financial investment	13 277	12 000
2.4 Cash	20 769,4	21 054,1
<i>Total for Chapter II</i>	<b>79 447,2</b>	<b>85 511,1</b>
<b>BALANCE</b>	<b>102 710,6</b>	<b>108 001,4</b>
<b>LIABILITIES</b>		
<b>IV. Capital and reserves</b>	-	-
4.1 Authorized fund	<b>23 963,9</b>	<b>23 963,9</b>
4.2 Additional and reserve capital	50 169	50 169
4.3 Special funds	13 113,7	13 113,7
4.4. Retained earnings	25 719,6	30 727
<b>V. Long term liabilities</b>	-	-
<b>VI. Short term liabilities</b>	-	-
6.1 Payables	7 637,2	7 926,1
<b>Total borrowed funds</b>	<b>120 603,4</b>	<b>125 899,7</b>