

# 2016

## Business plan on mining and processing marble, granite and gypsum



“Piter-Consult”

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## 1. Summary

### 1.1. Short overview

Within the framework of this project it is planned to create a large enterprise for producing marble, granite and gypsum, as well as their processing into building products and materials with further their implementation including all installation services in construction and reconstruction objects in the various countries of the world. This enterprise is planned to locate in the Republic of XXX and based on local mining companies and deposits of non-metallic raw materials.

Summary analysis of market factors showed that the market situation is favorable for implementation of the project in question. In this context, the implementation of the project in question seems to be a rational and timely decision.

### 1.2. Offered products and services

It is planned to achieve the following indicators on output:

- On the basis of \*\* pits it is planned to produce up to \*\*\* \*\*\* cubic meters of marble blocks, \*\*\* \*\*\* cubic meters of granite, up to \*\*\* \*\*\* tons of gypsum per year.
- On the basis of two refineries the following yearly production rates are planned: \*\* \*\*\* \*\*\* square meters of marble tiles, \*\* \*\*\* \*\*\* square meters of granite tiles, \* \*\*\* \*\*\* square meters of marble slabs, \* \*\*\* \*\*\* square meters of granite slabs, \*\* \*\*\* square meters of breccia marble slabs, \*\*\* \*\*\* square meters of granite slabs breccia, and \* \*\*\* \*\*\* \*\*kg bags of dry marble and granite flooring.
- On the basis of processing gypsum production plant it is planned to manufacture \*\* \*\*\* \*\*\* square meters of drywall slabs, and package \* \*\*\* \*\*\* \*\*kg bags of gypsum.

### 1.3. Mission, goals and objectives

The project mission is to meet the growing global building sector demand for construction materials.

The goal of this investment project is to create modern production facilities for extraction and processing of non-metallic minerals on the basis of marble, granite and gypsum deposits in ..... regions of the Republic of XXX.

The objective of the project is to achieve performance targets. The project is expected to achieve the following parameters of economic efficiency.

Indicators	Measurement	Value
<b>For project</b>		
Planning period	months	***
PV	\$	** *** **
IRR per year	%	***, %
NPV	\$	* *** **
NPV with TV	\$	* *** **
Payback period	months	**
Payback period with discount	months	**
<b>For investor</b>		
Planning period	months	**
PV	\$	* *** **
IRR per year	%	***, %
NPV	\$	* *** **
NPV with TV	\$	* *** **
Payback period	months	**
Payback period with discount	months	**

**Table 1. Project performance indicators**

Analysis of forecast indicators of the project economic efficiency shows investment attractiveness of this project, as it is evidenced by the following factors:

- A positive net present value (NPV), constituting \*,\* milliard US dollars excluding terminal value, and \*,\* milliard US dollars including terminal value.
- A high internal rate of return (IRR) composing \*\*\*%.
- The project pays off during the forecast period.

**Based on the data presented above, it is concluded that the project in question can be recommended for implementation.**

## **2. Products and services**

### **2.1. Introduction**

Within the framework of this project it is planned to create a large enterprise for producing marble, granite and gypsum, as well as their processing into building products and materials with further their implementation including all installation services in construction and reconstruction objects in the various countries of the world. This enterprise is planned to locate in the Republic of XXX and based on local mining companies and deposits of non-metallic raw materials.

Marble and granite are unique natural materials. Rich natural colour scheme and play of light are their main and unique values, which allow you to create decorative effects, magnificent and original compositions.

Living surface of a natural colour stone, its resistance to moisture, heat and heavy loads allows using it for cladding facades and interiors of buildings, to make facing and flooring slabs, stairs, countertops and window sills from it.

Thanks to the durability of natural stone and its proper use, people ensure reduced costs for buildings and surrounding areas \*-\* times as compared with the use of artificial stone imitations.

The use of natural materials in construction of housing and public buildings becomes increasingly popular and their consumption is growing every year-of.

### **2.2. Products and services**

The goal of this investment project is to create modern production facilities for extraction and processing of non-metallic minerals on the basis of marble, granite and gypsum deposits in ..... regions of the Republic of XXX.

It is planned to achieve the following indicators on output:

- On the basis of \*\* pits it is planned to produce up to \*\*\* \*\* cubic meters of marble blocks, \*\*\* \*\* cubic meters of granite, up to \*\*\* \*\* tons of gypsum per year.
- On the basis of two refineries the following yearly production rates are planned: \*\* \*\*\* \*\* square meters of marble tiles, \*\* \*\*\* \*\* square meters of granite tiles, \* \*\*\* \*\* square meters of marble slabs, \* \*\*\* \*\* square meters of granite slabs, \*\* \*\*\* square meters of breccia marble slabs, \*\*\* \*\* square meters of granite slabs breccia, and \* \*\*\* \*\* \*\*kg bags of dry marble and granite flooring.
- On the basis of processing gypsum production plant it is planned to manufacture \*\* \*\*\* \*\* square meters of drywall slabs, and package \* \*\*\* \*\* \*\*kg bags of gypsum.

### **2.3. Related products and services**

Besides production and processing of non-metallic raw materials it is also planned:

- To form production teams for installation of marble, granite tiles, slabs, breccias, as well as dry marble and granite floors at construction sites around the world.
- To open Trading Houses for commercialization of products in marble, granite, gypsum in the United States, Japan, Syria, the Republic of South Africa, England, Australia, UAE and Russia.
- To organize separate departments within Trading Houses on installation of marble, granite tiles, slabs, flooring and breccias at construction and re-construction facilities.

### 3. Market and industry analysis

#### 3.1. The use of product and services

Natural stone, despite the emergence of a huge number of artificial materials for various purposes, used in ever increasing quantities.

**Annual stone consumption growth is \*-%. Over the past \*\* years, stone consumption in the world has doubled, reaching \*\*\* million tons of stone products per year.<sup>1</sup>**

Global consumption growth was due to the intensive development of the construction industry. More than \*\*% of the total consumption of stone falls on the construction industry.

The following diagram shows the data for countrywide production of stone blocks.<sup>2</sup>

.....

#### **Chart 1. Production of stone blocks on a country-by-country basis**

As can be seen from the above chart, .....

.....

#### **Chart 2. Consumption of stone blocks on a country-by-country basis**

As can be seen from the above chart, .....

Russia should also be noted among these countries. Its consumption, despite the presence of large reserves of stone, is higher than domestic production, i.e., domestic production doesn't cover fully the demand on the stone products.

The following chart shows the dynamics of the production of stone products in Russia.<sup>3</sup>

As seen in the chart below, during the period observed there is a rapid increase in production of stone.

The highest jump in production occurred in \*\*\*\*, when volumes grew just \*,\*\* times.

During the period from \*\*\*\*, the Russian production of stone products increased \*,\* times.

Record growth of stone products production in Russia is explained by the intensive construction, which was conducted in the country in recent years.

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1

.....

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2 .....

3 .....

.....

### Chart 3. Production of stone products in Russia

The analysis of projects in Russia at present and in the future gives grounds to make an assumption about continuation of growth in demand for stone products in the country.

It should be noted that in Russia there is a demand on imported marble, despite its high price. The reason for this is low density of the Russian marble, which limits its use for decorating.

According to the program of restoration and renovation of St. Petersburg's historical center, which is listed as a UNESCO World Heritage Site, \* trillion Roubles will be required for restoration and repair works.<sup>4</sup>

Moreover, there is a decision taken to build in St. Petersburg a Gazprom campus at the cost of \*\* milliard Roubles.<sup>5</sup>

At the same time there are works on creation of a new administrative center in Moscow. Economists forecast its cost as \*\*\* milliard Roubles .<sup>6</sup>

The program of the Moscow Metro development is approved. By \*\*\*\*, \*\*\* km of underground roads at the cost of \*\*, \* milliard Roubles will be built.<sup>7</sup>

Creation of the park "Zaryadje" with a concert hall right in the center of Moscow will require investment of \*\*, \* milliard Roubles.<sup>8</sup>

\*\*\* milliard Roubles will be invested in construction of facilities for the FIFA World Cup in \*\*\*\*, and \*, \* milliard Roubles - in preparation of the XXIX Worldwide Winter Universiade in Krasnoyarsk in \*\*\*\*.<sup>9</sup>

Russian President Vladimir Putin, speaking at the plenary session of the International Economic Forum \*\*\*\*, said that the funds from the National Security Fund will be used for:

- construction of the Central Ring Road (CRR),
- modernization of Transsib.

New highways will require construction of stations and other large infrastructure projects.

To ensure sustainable growth of rail traffic on the BAM (Baikal-Amur Mainline) and Transsib (Trans-Siberian Railway) they intend to be spend \*\*\* milliard Roubles.<sup>10</sup>

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4 .....

5 .....

6 .....

7 ...//...../.....-.../.....-.....

8 ...//...../...../...../2013/04/19/.....\_.....\_.....

9 ...//...../...../2997097

10 ...//.....03.../23202-260-.....-.....-.....-.....



In connection with creation and reconstruction of new touristic and balneotherapeutic centers in Dagestan, Sochi and Crimea, new hotels and balneotherapeutic complexes are going to be built.

In all of the above construction sites, marble and granite will be used. For example, only the restoration of the Main (Mykolaiv) stairs of the State Hermitage Museum in St. Petersburg needs \*\*\* square meters of marble.

Until now, many stations of Moscow and St. Petersburg metro, as well as a number of other facilities in these cities were lined with marble and granite from deposits, assigned to "....." and "....." enterprises to be developed.<sup>11</sup>

Thus, it is around \* trillion Roubles and \*\*, \* milliard US dollars should be invested only for implementation of the above listed objects in the Russian Federation.

The current practice of the actual costs for construction of such facilities shows that approximately \*\*% of the amount, that is \*,\*\* milliard US dollars constitute costs for finishing works. \*\*% of the last, that is \*,\* milliard US dollars – costs for lining with marble and granite.

Consumption of stone products will grow not only in Russia but also worldwide. According to the market experts,<sup>12</sup> there will be a steady growth in the consumption of stone products in the United States in the coming years. The main growth drivers will be the post-crisis economic recovery and growth in construction, as well as real estate market recovery.

The same factors are expected to cause growth of consumption in the traditional European markets, in particular - in Spain, France and Portugal. Spanish market is growing even now, despite not pre-overcoming crisis phenomena in the economy of this country.

It is expected that the global market of stone products will increase by \*\*% over the next three years.

### 3.2. Demographic analysis

The following chart presents data on average per capita consumption of stone products by country.<sup>13</sup>

.....

#### Chart 4. Per capita consumption of stone products by country

The world average per capita consumption of stone products in the country is \*,\*\* square meters per capita. As can be seen from the above chart, China's consumption (despite its record volumes of production and consumption, as well as the intensive construction) is below the world average almost twice. This creates the preconditions for further growth in consumption in the region and puts China in a number of prospective

<sup>11</sup> .....

<sup>12</sup> «...-1590: ....., ..... - . ..... ....., .....», .....//.....-1590....

<sup>13</sup> ....., ....., " "..... ..", ..... "..... " .. 37, 2014

customers. This is confirmed by the forecasts of market experts who expect further growth in consumption of stone products in the region, with growth rates of \*-% per year.<sup>14</sup>

Per capita consumption of stone products in Russia is below the global average at more than \* times that, in addition to the previously submitted economic preconditions, creates conditions for the growth of the market in the country.<sup>15</sup>

The following table provides a summary analysis of market factors.

.....

**Table 2. Summary analysis of market factors**

Summary analysis of market factors showed that .....

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<sup>14</sup> ... .. (..), ..://...../..//.....-...../.....-.....-2015-...-.....-  
.....-.....-.....  
<sup>15</sup> ... .., .... 4.1 ... ..

### 3.3. Competition

According to experts,<sup>16</sup> there are large reserves of natural stone in the world, but distribution of its deposits is uneven. If in the early \*\*-ies of the XX century, the market was dominated by European countries (Italy, Greece, Spain, etc.), then it is the third world countries who are at the forefront now (China, India, Brazil and others), that are in course of transformation from suppliers of raw materials into the largest suppliers of finished products in the world market.

Currently, the market of decorative stone is in the process of globalization, which leads to escalating competition. This market has several unique features that distinguish it from other minerals market. First of all, it is a very long list of uses, standards and stone processing technologies that determines the diversity of the industry's quality requirements applied to raw materials.

The fact of preparation of commercial products out of natural stone of any degree of redistribution and of good quality, as a rule, is not a guarantee of its successful sales at market prices. Sale of goods requires application of appropriate marketing efforts.

An essential aspect of this business is quite high competition on the market. It is European market, which is the most highly saturated with stone facing due to the presence of a large number of producing countries (Italy, Spain, Greece, Portugal, Norway, Finland, Sweden and so on).

Analyzing the experience of countries that have succeeded in the development of its own industry for the production of facing stone, there are three main components of success visible in this direction:

- .....

All three components listed above will be used in the project under consideration.

.....

Tax benefits of enterprises, attracting foreign investment, are accompanied by the following deductions:

- .....

Enterprises attracting direct private foreign investments are exempt from operating activities income (profit) tax, property tax, tax for social infrastructure and landscaping, ecological tax, single tax for micro and small enterprises, as well as mandatory contributions to the Republican Road Fund.

These tax benefits are granted for \* years in case when the amount of direct foreign investment is over \*\* million USD.

The following items are exempt from customs duties:

- .....

In the field of production of building materials:

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<sup>16</sup> ".....", ..... ".....", ..... ".....", 2015

- .....

**Human resources.** .....

**Other factors.** .....

The above analysis of the competitive factors allows coming .....

### 3.4. SWOT - analysis

#### Market threats

The main market threats are related to the effects of negative macroeconomic factors caused by the global economic crisis, and the fall in resource requirements.

According to World Bank estimates, global economic growth in \*\*\*\* stood at \*,\*%, the forecast for growth in \*\*\*\* is \*,\*%. In January \*\*\*\*, the head of the European Central Bank Mario Draghi characterized a forecast for the oncoming year as yet non-specified.<sup>17</sup>

In May \*\*\*\*, the Director of the International Monetary Fund Christine Lagarde said that the world economy has still currently been suffering from the effects of the \*\*\*\* crisis.<sup>18</sup>

There is no reliable information about how long this period of economic uncertainty will last at the time of drawing up this document. Most experts agree that it will take \*-\*\* years to restore the former economic growth.

#### Market opportunities

.....

#### Strengths

We may name the following strong points of the project under consideration:

- .....

#### Weaknesses

Weaknesses include the fact that the .....<sup>19</sup>

The following is a comparison analysis of the strengths and weaknesses with opportunities and business threats (SWOT-analysis). In terms of this analysis, opportunities are considered as factors with positive impact on business, threats – as factors with negative influence.

In each list the factors are compared with each other. The order of comparison is shown in the table below.

	Opportunities	Threats
--	---------------	---------

<sup>17</sup> .....: “...! ..... ”, ....

<sup>18</sup> .....: “... .. 2008 ..... ”. ....

<sup>19</sup> ..... .., .....

<b>Strong points</b>	<p><b>Strengths &amp; Opportunities field</b></p> <p><i>Whether these strengths allow taking any advantage thanks to this opportunity?</i></p>	<p><b>Strengths &amp; Threats field</b></p> <p><i>Whether these strengths help to avoid this threat?</i></p>
<b>Weak points</b>	<p><b>Weaknesses &amp; Opportunities field</b></p> <p><i>Whether these weak points make difficult using this opportunity?</i></p>	<p><b>Weaknesses &amp; Threats field</b></p> <p><i>Whether these weak points make difficult to avoid this threat?</i></p>

**Table 3. The order of comparison for SWOT-analysis**

Positive answers to the questions listed in the above table are marked with the symbol “√”.

The following table shows .....

**Table 4. SWOT-analysis**

On the basis of the SWOT-analysis performed, a list of strategic initiatives was developed to make use of strengths and opportunities, to compensate for weaknesses and minimize threats.

.....

**Table 5. Strategic initiatives**

**4. Target markets**

**4.1. Target consumers**

....

**4.2. Geographic target market**

...

**4.3. Pricing**

...

**5. Advertising and promotion strategies**

**5.1. Promotion strategy**

.....

**5.2. Means of advertising**

- .....

**5.3. Sales forecast**

Sales forecast is presented in the table below.

.....

**Table 6. Sales forecast**

As can be seen from the table above, .....

**6. Management**

**6.1. The company and its key staff**

.....

**Chart 5. Structural scheme of the JV under creation**

**7. Management**

**7.1. The company and its key staff**

.....

**Chart 6. Structural scheme of the JV under creation**

IOIOIOIOIOIO.

.....

**Table 7. Distribution of shares in the authorized capital of the joint venture**

- .....

.....

**Chart 7. Project schedule, by months**

.....

**7.2. Constant consumption of assets**

.....

**7.3. Preproduction costs**

.....

**Table 8. Preproduction costs**

**8. Financial analysis**

**8.1. Cost of goods sold**

The following table presents the operating costs of the planned enterprise.

.....

**Table 9. Operating expenses**

.....

**8.2. Break-even analysis**

Calculation of break-even level is presented in the following table.

.....

### **Table 10. Calculation of break-even level**

As can be seen from the above table, the project makes it possible to preserve profitability at a fall in revenue of up to \*% of the planned one.

### **8.3. Quantitative analysis**

Schedule of revenues for the project is shown in the following diagram.

.....

#### **Chart 8. Schedule of revenues**

As can be seen from the chart above, .....

The following chart shows the structure of revenue.

.....

#### **Chart 9. Structure of revenues according to their sources**

As seen in the chart below, the bulk of the revenue of the company is drawn on the sale of tiles and slabs.

Schedule of costs is shown in the following chart.

.....

#### **Chart 10. Schedule of costs**

As can be seen from the chart above, .....

Structure of costs is shown in the next chart.

.....

#### **Chart 11. Structure of costs**

### **8.4. Gains and losses**

**Gains and loss statement is presented** in **Ошибка! Источник ссылки не найден.**

As can be seen from the table, .....

### **8.5. Cash flow**

**Budgeted cash flow statement is presented** in .....

*Table 11. Budgeted cash flow statement,*

As can be seen from the table, .....

### **8.6. Enterprise balances**

**Balance is presented** in .....

*Table 12.*

As can be seen from the table, .....

.....

**Table 11. Budgeted cash flow statement, \$**

.....

**Table 12. Balance, \$**

## 8.7. Risks

### Organizational and managerial risks

#### *The risk of errors in selection of personnel*

.....

**Measures to reduce (eliminate) these risks: .....**

**Probability of this risk - average.**

**Degree of influence – high.**

**Possibility of risk management – complete.**

#### *Risk of loss or damage*

.....

**Measures to reduce (eliminate) this risk: .....**

**Probability of this risk - average.**

**Degree of influence - high.**

**Possibility of risk management - partial.**

#### *Risk of low demand for the goods produced*

.....

**Measures to reduce (eliminate) this risk: .....**

**Probability of this risk - sub average.**

**Degree of influence – high.**

**Possibility of this risk management - partial.**

#### *Risk of high prices for traded goods and services*

.....

**Measures to reduce (eliminate) this risk: .....**

**Probability of this risk - sub average.**



**Degree of influence – high.**

**Possibility of this risk management - partial.**

**Financial risks**

***Risk of non-payment***

.....

**Measures to reduce (eliminate) this risk: .....**

**Probability of this risk - low.**

***Risk of a lack of funding for the project***

.....

**Measures to reduce (eliminate) this risk: .....**

**Probability of this risk - sub average.**

**Possibility of risk management - partial.**

**Economic risks**

***Risk of a significant change in the tax system***

.....

**Measures to reduce (eliminate) this risk: .....**

**Probability of this risk - sub average.**

**Degree of influence – high.**

**Possibility of risk management – not available.**

## 9. Annex. The effectiveness of the project

Main criteria for calculation of the project cost-effectiveness rates are presented in the table below.

Criteria	Values
<b>For Project</b>	
Forecast period, years	**
Post-forecast period, years	*
Settlement terms	Constant prices
Discount rate, %	**, %
<b>For Investor</b>	
Forecast period, years	*
Post-forecast period, years	*
Settlement terms	Constant prices
Discount rate, %	**, %

**Table 13. Criteria for calculation of economic efficiency**

Project performance indicators for the investor are calculated based on the following assumptions:

- The investor performs project contribution in amount of \*\*\* million US dollars, obtained as a loan for \* years at % per annum.
- During the project implementation, the company reimburse the investor with the amount of interest payments on loans and for the return of the principal amount of the loan to the investor.<sup>20</sup>
- After seven years of the project the investor sells its share constituting \*\*, \*\*%, and receiving the appropriate amount of the net assets of the enterprise.

Indicators	Measurement	Value
<b>For project</b>		
Planning period	months	***
PV	\$	** *** **
IRR per year	%	**, %
NPV	\$	* ** **
NPV with TV	\$	* ** **
Payback period	months	**
Payback period with discount	months	**
<b>For investor</b>		
Planning period	months	**
PV	\$	* ** **
IRR per year	%	**, %
NPV	\$	* ** **
NPV with TV	\$	* ** **
Payback period	months	**
Payback period with discount	months	**

**Table 14. Indicators of project economic efficiency**

The analysis of forecast indicators of the project economic efficiency indicates investment attractiveness, as evidenced by the following factors:

<sup>20</sup> See «Payments to the shareholder for the interest and repayment of the loan» .....

**Table 11. Budgeted cash flow statement, \$ cash flow statement**

- Positive net present value (NPV) constituting \*,\* milliard US dollars, excluding terminal cost, and \*,\* milliard US dollars, including terminal cost.
- High internal rate of return (IRR), which is \*\*\*%.
- The project pays off during the forecast period.

**Based on the data presented above, it is concluded that the project in question can be recommended for implementation.**