Appendix 1 to protocol

APPROVED
by the Board of Directors
of Open Joint Stock Company
RUSNANO

Protocol from 20 December 2013 #27
(section I)

STRATEGY
OF OPEN JOINT-STOCK COMPANY “RUSNANO”
UNTIL 2020

Moscow
2013
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I. RUSNANO GROUP AS AN INSTITUTE OF THE INNOVATION DEVELOPMENT SYSTEM OF THE RUSSIAN FEDERATION

Establishment of national nanotechnology industry sector is a top-priority strategic direction of the national policy that determines the new approaches to modernizing the Russian economy and innovative development of the Russian Federation.

The fundamentals of the national policy with respect to the nanotechnology industry sector are defined in the Presidential Initiative “Nanotechnology Industry Development Strategy” dated 24 April 2007 and the Nanotechnology Industry Development Program in the Russian Federation until 2015.

For the purposes of promoting the national policy in the nanotechnology sector, the State Corporation “The Russian Corporation of Nanotechnologies” was established in 2007 pursuant to the Federal Law “On the Russian Nanotechnology Corporation”, its reorganization in 2011 resulted in the establishment of Open Joint-Stock Company “RUSNANO” (hereinafter RUSNANO) and the Fund for Infrastructure and Educational Programs (hereinafter FIEP). Being independent legal entities, RUSNANO and FIEP (hereinafter RUSNANO Group) work closely together to achieve common objectives related to improving the competitiveness and effectiveness of the national nanotechnology industry.

In view of the key priorities of the national policy in establishment and development of the nanotechnology industry, the mission of RUSNANO Group is building the nanotechnology industry in the Russian Federation.

RUSNANO Group is the coordinator of innovation activities of the national nanotechnology network of the Russian Federation, it works to procure achievement of the key objectives set for the second phase of the Presidential Initiative “Nanotechnology Industry Development Strategy” and the Nanotechnology Industry Development Program in the Russian Federation until 2015, including achievement of the planned sales of nanotechnology products\(^1\) in the Russian Federation in the amount of 900 billion roubles, including 300 billion roubles as the result of realization of the projects of RUSNANO.

RUSNANO Group is a basic development institute in the Russian Federation along with other institutes contributing to the diversification of the economy such as Skolkovo Foundation, State Corporation Bank for Development and Foreign Economic Affairs (Vnesheconombank), Russian Venture Company, Russian Direct Investment Fund, Agency for Strategic Initiatives, Russian Foundation for Technological Development etc.

RUSNANO Group actively promotes the implementation of the national

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\(^1\)Hereinafter the term “nanotechnology products” has the meaning set forth in Appendix 2 to the Strategy.
economic policy by participating in realizing governmental programs aimed at innovative development and modernization of the economy (“Development of Science and Technologies”, “Development of Industry and Improvement of its Competitiveness”, “Development of the Pharmaceutical and Medical Industry” and other industry-related programs).

RUSNANO, as a key element of RUSNANO Group, is also an element of the Russian system of development institutes (“innovation lift”) formed as part of the Government Program of the Russian Federation “Economic Development and Innovative Economy” investing primarily in the hi-tech companies which have passed the venture stage and need additional capital to increase their production and/or sales volume (growth stage) but have not yet achieved the size and financial effectiveness that would allow them to raise money on public capital markets.

By focusing on the sector of the Russian direct investment market where private investment funds and companies are only marginally represented, RUSNANO procure access to financing for hi-tech companies which need investment for further growth.

RUSNANO Group provides all the development institutes with access to participation in the projects and to the results of its completed investment projects on the basis of mutual benefit and commercial effectiveness.

Interaction within RUSNANO Group

The major instrument of RUSNANO within the RUSNANO Group activity on establishment and development of the nanotechnology industry and the required innovation infrastructure is an implementation of the investment projects promoting the building of processing chains and (or) supporting the development of production facilities in the nanotechnology industry of the Russian Federation.

FIEP focuses on tasks of development of innovation infrastructure in the field of nanotechnology, mechanisms and instruments for realization of potential of nanotechnology industry in principal directions of FIEP activity - implementation of the infrastructure and educational programs, and also the activities in the fields of technical governing, in cooperation with all enterprises of the nanotechnology industry and the members of the national nanotechnology network, including the portfolio companies of RUSNANO.

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2Hereinafter the term “nanotechnology” has the meaning set forth in Appendix 3 to the Strategy.
3Hereinafter the term “portfolio companies” has the meaning set forth in Appendix 3 to the Strategy.
The key directions of interaction between RUSNANO and FIEP are as follows:

- Infrastructure support for the operations of RUSNANO’s portfolio companies by FIEP, including access to the network of FIEP’s nanotechnology centres and programs aimed at boosting demand;
- Search for breakthrough technologies/products and joined implementation of early stage projects;
- Development of human potential of the nanotechnology industry by implementing educational programs, including training and retraining of human resources for RUSNANO’s portfolio companies;
- Adoption/improvement of nanotechnology product quality and safety standards through the systems of standardization, certification, metrological assurance and promotion of the safety of hi-tech products developed by FIEP and used, among others, in RUSNANO’s projects;
- Development of the nanotechnology industry communications network through joint public events organized for the nanotechnology companies to discuss the current questions and to exchange experience.

Orientation towards common objectives and close cooperation provide synergy of strategies between RUSNANO and FIEP in order to achieve the objectives related to establishment and development of the nanotechnology industry in the Russian Federation.

II. STRATEGIC VISION AND PRINCIPAL OBJECTIVES OF RUSNANO

RUSNANO’s strategic vision

In line with the declared mission, RUSNANO is committed to becoming the Russian global investor in technology specializing in investment (directly and through nanotechnology investment funds\(^4\)) in competitive Russian and foreign companies implementing promising nanotechnologies. By 2020, RUSNANO is expected to become an internationally recognized leader in the hi-tech investment sector.

On the basis of the declared mission and the strategic vision, RUSNANO’s principal objectives have been defined:

1. Increasing of the production and sales of Russian nanotechnology products by RUSNANO’s portfolio companies and nanotechnology investment funds;

\(^4\)Hereinafter the term “nanotechnology investment funds” has the meaning set forth in Appendix 3 to the Strategy.
2. Establishment of new or expansion of existing hi-tech production facilities, research and engineering centres\(^5\) in the Russian Federation;

3. Creation of effective investment instruments that procure (i) revenue that meets the expectations of the market investors from investments of such risk level; and (ii) raising capital to finance new investment projects by attracting investors to nanotechnology investment funds established under the terms and conditions satisfying the best practice requirements of international direct investment sector;

4. Promotion of the direct investment market in the Russian Federation in the hi-tech sector, including improvement of the forms of ownership that exist in the Russian jurisdiction for the direct and venture investment funds (investment partnership etc.).

In accordance with the strategic vision, RUSNANO’s **principal activities** are as follows:

1. Investment (directly and through nanotechnology investment funds) in Russian companies implementing promising nanotechnologies and having significant potential for creation in the Russian Federation of new or expanding the existing markets for hi-tech products;

2. Investment (directly and through nanotechnology investment funds) in foreign companies implementing promising nanotechnologies in order to transfer advanced technologies and establish in the Russian Federation new high-tech production facilities, research and engineering centres and/or build processing chains supporting the development of production facilities in the nanotechnology industry of the Russian Federation.

**III. KEY PRINCIPLES OF OPERATION**

Key principles of operation include the following:

1. *Observance of the national interest*

   By investing (directly and through nanotechnology investment funds) in competitive Russian and foreign companies implementing promising nanotechnologies and having potential for creating in the Russian Federation of new or expansion of existing markets for hi-tech products, RUSNANO promotes modernization of the Russian economy, diversification and increase of the share which hi-tech production occupies in the gross domestic product structure of the Russian Federation.

\(^5\)Hereinafter the term “research and engineering centers” has the meaning set forth in Appendix 3 to the Strategy.
2. Market orientation

In terms of investment, RUSNANO operates on the basis of best practice accepted in the international direct investment industry in order to achieve positive financial results from its investment projects and growth of RUSNANO’s investment portfolio value.

3. Transparency and openness

RUSNANO is conscious of the high social importance of its activities, it is open for interaction with any Russian or foreign structures that promote achievement of the objectives chosen and it takes the required steps in order to keep the participants of the innovation process and the public informed about its ongoing operations and their results.

4. Expertise

RUSNANO conducts its operations with maximum competence level possible on the basis of the results of highly qualified scientific, technical, investment, legal and other expert reviews provided by leading Russian and international scientists, specialists and consultants hired on market terms.

The investment competencies possessed by RUSNANO and the management teams of the nanotechnology investment funds make it possible to raise additional capital to finance new investment projects by attracting investors to the above funds.

5. Independence

RUSNANO acts independently pursuant to the laws and regulations of the Russian Federation and the resolutions of its governing bodies.

IV. RUSNANO’S INVESTMENT STRATEGY

The main instrument enabling achievement by RUSNANO of its objectives is implementation of investment projects. RUSNANO’s priority in its operations is consummation of financially effective investment projects promoting creating of technological chains and/or procuring development of new nanotechnology production facilities in the Russian Federation.

RUSNANO implements investment projects either using its own resources or by establishing nanotechnology investment funds. The strategy of such funds and implementation of individual investment projects by such funds are normally aimed at achieving RUSNANO’s principal objectives.

The criteria and methods or financing investment projects, the terms and conditions for RUSNANO’s participation in such projects are defined in the Procedure and Conditions for Financing Investment Projects and other internal documents approved by RUSNANO’s Board of Directors.
RUSNANO invests in the projects and nanotechnology investment funds that meet the requirements for financial effectiveness. When exiting from projects, RUSNANO and the management companies of nanotechnology investment funds seek to achieve maximum return on the capital invested.

**Investment focus**

RUSNANO focuses on investing (directly and through nanotechnology investment funds) primarily in companies implementing promising nanotechnologies and needing additional capital to increase their production and/or sales volume (growth stage), provided that such companies have significant potential for increasing their competitiveness and portfolio company value by building production capacities, engineering or research units in the Russian Federation and/or increasing such company’s sales on the Russian market.

Additional instruments used in RUSNANO’s investment strategy are: (i) investment in companies implementing potentially breakthrough technologies in which the technological risks are material (venture stage); and (ii) investment in nanotechnology investment funds financing the projects at the venture stage subject to strategic advisability (obtaining access to technologies, markets). RUSNANO may accomplish such investments together with, among others, the Fund for Infrastructure and Educational Programs or in partnership with the leading management companies in the venture investment sphere.

When investing in companies during their growth stage, RUSNANO may acquire a significant (sometimes controlling) stake in the charter capital that enables RUSNANO’s investment team together with the management of the portfolio company to define the strategic direction of the company’s development and take the steps required to improve its operational performance, which together should contribute to the increase of the portfolio company’s value.

When investing in international nanotechnology investment funds, RUSNANO aims to receive additional preferences with respect to technology transfer of such funds’ portfolio companies into the territory of the Russian Federation.

**Industry focus**

In its investment activities, RUSNANO focuses on the following industry sectors which are the most promising for using nanotechnologies:

- healthcare;
- metallurgy and metal fabrication;
- power production;
- mechanical engineering;
- instrument engineering;
- chemistry and petroleum chemistry;
- electronics;
- optoelectronics;
- telecommunications;
- construction materials;
- industrial materials;
- biotechnologies.

RUSNANO’s activity is expected to procure accumulation of expertise in the key areas of its specialization.

As a result of the activities performed by RUSNANO Group, new technological clusters are formed in the nanotechnology industry of the Russian Federation, including Nanomaterials, Optics and Electronics, Medicine and Pharmacology, Energy Efficiency, Coating Application and Surface Modification.

**Geographical Focus**

RUSNANO invests in Russian and foreign companies provided that such investment is in line with its investment strategy. To procure access to foreign companies that have the most promising technologies, RUSNANO continues to develop cooperation with international investment funds and manufacturing companies in the geographical areas with high innovation potential (USA, Europe, Israel etc.) and to enhance its cooperation with Asian countries (Japan, Singapore, China etc.).

**RUSNANO’s competitive advantages**

RUSNANO’s primary competitive advantage lies in its unique competencies enabling it to provide favourable conditions for creation and performance of innovation business in the Russian Federation and to generate additional value for portfolio companies by doing the following:

- Supporting portfolio companies in access to and increasing the production and sales on the Russian market;
- Supporting portfolio companies in managing Russian country-specific risks (administrative support on the federal and regional level, protection from bureaucracy and corruption);
- Access for portfolio companies to the opportunities provided by FIEP and the network of nanotechnology centres established under its auspice, including FIEP’s capacities in establishment and improvement of standardisation, certification, metrological assurance and safety assurance systems for hi-tech products;
• Support for portfolio companies in accessing various forms of additional financing and the benefits and preferences provided by federal or regional governments and other development institutes and improving the financial effectiveness of the investment project.

RUSNANO conducts systematic work to seek out most promising technologies and technology trends of current importance for the Russian and international markets of hi-tech products by developing its own competencies and accumulating experience within the company’s specialization as well as active cooperation with the leading global investment funds and manufacturing companies and presence in the key global technology centres.

RUSNANO, when financing investment projects, pays special attention to risk management, both standard, inherent in all types of investment projects (credit, market, operational) and those specific of innovation projects (scientific and technological risks etc.).

V. RUSNANO’S BUSINESS MODEL

In order to achieve its strategic objectives related to raising private capital to finance new investment projects and promote development in the Russian Federation of the direct investment market in the hi-tech industry, RUSNANO is, during 2013-2014, optimizing its business model by separating the functions of asset management and asset ownership through incorporating a management company (hereinafter Rusnano Management Company), the above management company will have the functions of the single-membered executive body of RUSNANO in order to provide the following: (i) opportunities to attract private capital to nanotechnology investment funds to be management by Rusnano Management Company; (ii) building a transparent and effective management system according to the best practice accepted in the international direct investment industry; (iii) reduction of management expenses by, among other things, transfer of RUSNANO’s staff to Rusnano Management Company and arranging financing for the operational performance of the latter on the basis of management fees according to the best practice accepted in the international direct investment industry. The fee received by Rusnano Management Company for managing RUSNANO and nanotechnology investment funds should include annual management commission and success fee for receiving revenue from successful investment realization.

New nanotechnology investment funds managed by Rusnano Management Company should be in line with RUSNANO’s strategy. When allocating cash to new nanotechnology investment funds managed by Rusnano Management Company, RUSNANO will keep in mind the objective related to development in the Russian Federation of the direct investment market in the hi-tech industry
sector by investing in the funds established in the Russian jurisdiction in the form of “investment partnership” or other forms of ownership regulated by Russian laws. RUSNANO may invest in nanotechnology investment funds registered in foreign jurisdictions only if significant amounts are raised by such funds from third party investors.

Rusanovo Management Company should be established in 2013, RUSNANO’s participation in the capital of Rusnano Management Company will be at least 80% of the charter capital. In order to assure consistency of the investment process and organization of the management company’s activities with the best practice adopted by the international direct investment industry and to create effective incentive plans securing achievement of RUSNANO’s strategic objectives, international and Russian investors and management representatives will be invited to participate as minority investors in the charter capital of Rusnano Management Company.

In line with the goal of the Russian Government aiming at phased reduction of the government’s participation in the management of assets in competitive economy sectors, Rusnano Management Company is to be sold in a phased manner to private investors by 2020 using competitive procedures subject to the requirements related to the maximum share held by private investors in the charter capital of Rusnano management capital set out in clause 4 of Appendix 1. By selling Rusnano Management Company to private investors, additional amounts will be raised for the nanotechnology investment funds managed by it from large international and Russian investors.

RUSNANO exits from Rusnano Management Company under the achievement of the key performance parameter “Volume of Sales by Portfolio Companies of Russian Nanotechnology Industry Products and Hi-Tech Materials” of RUB 300 bn. Upon complete exit of RUSNANO from the charter capital of Rusnano Management Company, the general meeting and the Board of Directors of RUSNANO will resolve on the methods of management of RUSNANO thereupon.

VI. FINANCIAL PROVISION FOR RUSNANO’S STRATEGY

In order to achieve the key objectives faced by RUSNANO and reflected in this Strategy, the following sources of financing are used:

- By the Russian Federation – contribution to RUSNANO’s charter capital;
- Borrowings raised on capital markets and guaranteed by the Russian Federation or otherwise;
- Funds received from exit from investment projects, repayment of loans, guarantee fees;
Funds raised into the portfolio companies and nanotechnology investment funds.

When using temporarily available cash, RUSNANO adheres to the conservative strategy aimed at protection and preservation of its equity.

VII. RUSNANO’S ANTICIPATED RESULTS AND PERFORMANCE PARAMETERS

This Strategy is developed for the period until 2020.

The anticipated results and performance parameters are described in Appendix 1 to this Strategy.

In order to implement this Strategy, the Strategy implementation plan is being developed, including the sections related to RUSNANO’s subsidiaries, RUSNANO’s long-term business plan and the management agreement between RUSNANO and Rusnano Management Company.

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### APPENDIX 1

to RUSNANO’s Strategy

#### Key parameters of RUSNANO’s performance until 2020

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sales by RUSNANO’s portfolio companies and nanotechnology investment funds of Russian nanotechnology industry products and hi-tech materials(^6) in current market prices (ultimate buyer prices)</td>
<td>RUB bn</td>
<td>50</td>
<td>100</td>
<td>300</td>
<td>600</td>
</tr>
<tr>
<td>2. Total number of launched new production facilities, research and engineering centres established in the Russian Federation as a result of implementing projects with participation of RUSNANO and nanotechnology investment funds(^7)</td>
<td>Entity (cumulative)</td>
<td>45</td>
<td>53</td>
<td>65</td>
<td>100</td>
</tr>
<tr>
<td>3. Total capital amount for financing new investment projects raised by RUSNANO and Rusnano Management Company into the portfolio companies and by establishing nanotechnology investment funds(^8)</td>
<td>RUB bn (cumulative)</td>
<td>0</td>
<td>7</td>
<td>20</td>
<td>150</td>
</tr>
<tr>
<td>4. Maximum share held by private investors in the charter capital of Rusnano Management Company</td>
<td>%, at year-end</td>
<td>-</td>
<td>20</td>
<td>49</td>
<td>100(^9)</td>
</tr>
</tbody>
</table>

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\(^6\) Definitions of “nanotechnology industry products” and “hi-tech materials” are provided in Appendix 2. For the purposes of calculating the parameters, the total annual revenue is taken into account from nanotechnology industry products manufactured by portfolio companies (according to the data of the Federal State Statistics Service), including the revenue from the nanotechnology industry products of portfolio companies from which RUSNANO and/or nanotechnology investment funds have exited by selling the share in the capital of such portfolio company or repayment of loans or suretyships provided to them.

\(^7\) In case there is more than one launch presupposed within the same site, only one launch is considered (which preceded the others) in calculations in order to reflect the fulfillment of the goal.

\(^8\) The Long-Term Business Plan of RUSNANO will determine the requirement to the minimum amount of investment that have to be invested by the nanotechnology investment funds into the projects of the production of nanotechnology industry products and hi-tech materials.

\(^9\) The condition of increasing the stake of the of private investors in the charter capital of Rusnano Management Company up to the controlling stake (50% and more) is the achievement by RUSNANO the key performance parameter “Volume of Sales by Portfolio Companies of Russian Nanotechnology Industry Products and Hi-Tech Materials” of RUB 300 billion roubles.
APPENDIX 2

to RUSNANO’s Strategy

Definitions of “nanotechnology industry products” and “hi-tech materials” for
the purposes of calculating the parameter “Volume of Sales by Portfolio
Companies of Russian Nanotechnology Industry Products and Hi-Tech
Materials”

1. **Nanotechnology industry products** – products (goods, services) produced by portfolio companies using nanotechnologies and possessing, as a result of the above, previously unachievable technical and economic parameters.

2. There are the following categories of nanotechnology industry products as relates to products and services:

   a) category A nanotechnology industry products (primary nanotechnology industry products) – goods which are nano-components (nano-objects and nano-systems), including those used as raw materials and semi-manufactured goods for manufacturing nanotechnology industry products of categories B, C and D;

   b) category B nanotechnology industry products (products containing nano-components) – goods which contain nano-components (category A nanotechnology industry products);

   c) category C nanotechnology industry products – services (goods not containing nano-components) which use nanotechnologies and/or nano-components (category A nanotechnology industry products) during their provision (production);

   d) category D nanotechnology industry products – gods which are special equipment for nanotechnologies.

3. **Category A** includes nanotechnology industry products if such products satisfy at least one of the following criteria:

   a) products contain components which determine its functional properties and/or consumer characteristics and the size of which in a least one dimension is from 1 to 100 nanometres (for nanotechnology industry products the upper limit is determined by the size of proteins, DNA, biological molecules and other organic compounds);

   b) products were produced by manipulating individual atoms and molecules, including the use of biochemical technologies, such as genomics, proteomics and systems biology;

4. **Category B** includes nanotechnology industry products if the nano-components impart on such products any new functional (mechanical, physical,
chemical etc.) properties of principal importance for such products or assure a significant improvement of their technical, economic and/or consumer characteristics.

5. **Category C** includes nanotechnology industry products if the use of nanotechnologies and/or nano-components assures a significant improvement of the technical, economic and/or consumer characteristics of the services provided (goods manufactured).

6. **Category D** includes nanotechnology industry products if such products satisfy at least one of the following criteria:
   a) procure the quality of measurement and/or control which is unattainable using any other methods;
   b) procure controlled manipulation with individual atoms and molecules, including production of nanotechnology industry products of categories A, B and C.

7. **Hi-tech materials** – products of portfolio companies that possess exceptional properties (especial purity, rare-earth element content etc.) and are crucial for the production of nanotechnology industry products (according to the list approved by the Scientific and Technical Council).
APPENDIX 3

to RUSNANO’s Strategy

TERMS AND DEFINITIONS

Nanotechnology investment funds
Russian and international direct and/or venture investment funds managed by RUSNANO’s subsidiaries or third party management companies which (funds) are targets for RUSNANO’s investment.

Nanotechnologies
Technologies aimed at creating and practical application of nano-objects and nano-systems with pre-set properties and characteristics.

Nano-system
A system (including nanomaterials and nano-devices) containing structural elements which are nano-objects, the linear size of which in one dimension at least if 1-100 nm, which determine the main properties and characteristics of such system.

Portfolio company
A legal entity to which investment was provided, directly or indirectly (in the form, inter alia, of loans or suretyships), by RUSNANO or nanotechnology investment funds.

Research and engineering centre
A unit or subsidiary of a portfolio company or any other entity established with the participation of a portfolio company in order to implement research and/or development and/or engineering work in the Russian Federation.

Launch of new production facility
Launch on one production site of one or several production lines and start of manufacturing by such line of the products envisaged by the investment project.

Launch of new research and engineering centre
Launch on one production site of a research equipment system envisaged by the project’s investment program followed by the start of research and/or development and/or engineering work.