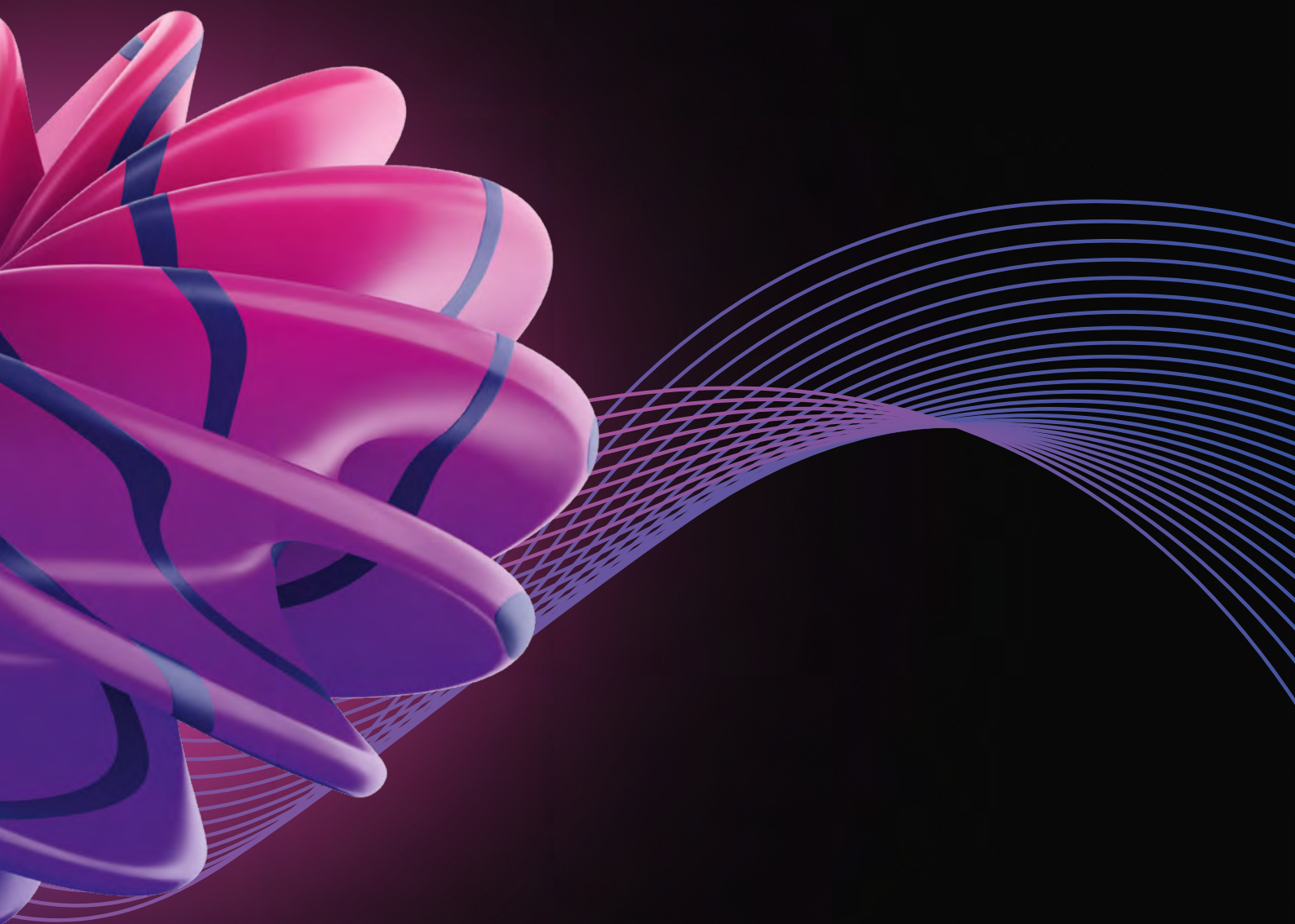
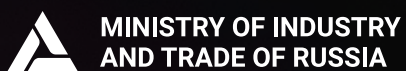


WITH SUPPORT AND PARTICIPATION OF



# **CORPORATE INNOVATION BEST PRACTICES IN THE RUSSIAN MARKET / POWERED BY GENERATIONS**

# OPENING STATEMENT

Today, Russia's modern technological development is based on the large-scale development of innovations. The introduction of technologies is no longer just a way of competition between companies, but a matter of national economic development and country leadership in the most promising areas of science and technology.

More and more often, industrial enterprises are becoming aware of the need to carry out innovative activities. They see the introduction of innovations in production processes as one of the most important ways to raise the competitiveness of manufactured products, to maintain high rates of development and profitability. Therefore, overcoming various difficulties, enterprises have started developing technological innovations on their own, or engaging experts capable of introducing such innovations through accelerator programmes, or search for innovative startups.

Along with that, the innovative activities of companies are of key importance for successfully solving the tasks of import substitution and ensuring Russia's technological sovereignty; therefore, much attention is now also paid to stimulating and expanding the demand and supply of Russian innovative products inside the country and on the markets of friendly countries. That's why the market demand for implementing critical solutions is growing every day.

GenerationS presents the first Corporate Innovation Study "Corporate Innovation Best Practices in the Russian Market" to draw the market's attention to tangible results of innovation activities carried out by Russian companies. The tools and approaches of innovation leaders presented in the Study can become an example for those companies that are switching to the "open innovation" model.



**Ekaterina Petrova**

Director of GenerationS, Corporate Innovation Development Platform



# KEY PARTNERS ABOUT THE STUDY

The dynamically changing global economic landscape demands a rapid response from governments and businesses to maintain leading positions and high competitiveness. The focus on innovative development is the cornerstone of the most efficient adaptation to changed conditions, the creation of breakthrough products, and integration into the new technological paradigm. At the same time, it is essential not only to rely on third-party products but also to continuously develop our own advanced approaches to innovative development. The results of studying the best practices in corporate innovation in the Russian market demonstrate the extensive experience and expertise that our companies have accumulated in recent years. Joining the efforts of the business, investment, and scientific communities is key to accelerating the introduction of innovations in all sectors of the economy, strengthening technological sovereignty, and laying a foundation for breakthrough achievements in the future.



**Anatoly Braverman**

Director General of RVC

The innovative activities of companies are of key importance for successfully addressing the tasks of import substitution and ensuring technological sovereignty. The GIA Award and the Corporate Innovation Best Practices in the Russian Market study are the markers that showcase the brightest practices and projects. For the Ministry of Industry and Trade of Russia, it is also an additional opportunity to pay attention to promising niches, products, and areas in the field of innovation.



**Vasily Osmakov**

First Deputy Minister of Industry and Trade of the Russian Federation

Technological innovation serves as the engine of progress. Promoting such activity and fostering high-tech sectors, establishing and nurturing scientific and technological hubs, and supporting the advancement and implementation of innovative products and technologies are strategic objectives pursued by the Ministry of Economic Development of the Russian Federation. GenerationS, a Corporate Innovation Development Platform, stands as a trusted ally in this endeavour.

The challenges confronting Russia today are driving a rapid transformation of industries and a shift toward an innovative economic model. This extends beyond the realm of digital technology to encompass the development of other critical technologies that are essential for end-to-end operations. Findings from studies on corporate innovation in Russia indicate a significant presence of companies capable of high-level production, capable of introducing groundbreaking products and addressing import substitution needs.

I express my hope that the development of the innovation ecosystem, involving collaboration between the state, private enterprises, and the scientific community, will not only address technological development challenges faced by individual organisations and enterprises, but also safeguard the technological sovereignty of our nation!



**Maxim Kolesnikov**

Deputy Minister of Economic Development of the Russian Federation

Global trends and changes present both challenges that must be addressed effectively and in a timely manner, and opportunities waiting to be seized. Achieving results today requires joint efforts. The scientific and practical expertise of the Graduate School of Management of SPbU in management matters, coupled with the experience of the GenerationS platform in implementing innovative solutions, have enabled the identification of success factors in developing corporate innovations for the first time in Russia. The obtained results should serve as the foundation for establishing an effective system for managing innovations in Russian companies. They are based on a detailed analysis of the activities of market leaders and are confirmed by the synergy of science and practice.



**Olga Dergunova**

Deputy President and Chairman of the Management Board of VTB Bank, Director of GSOM SPbU



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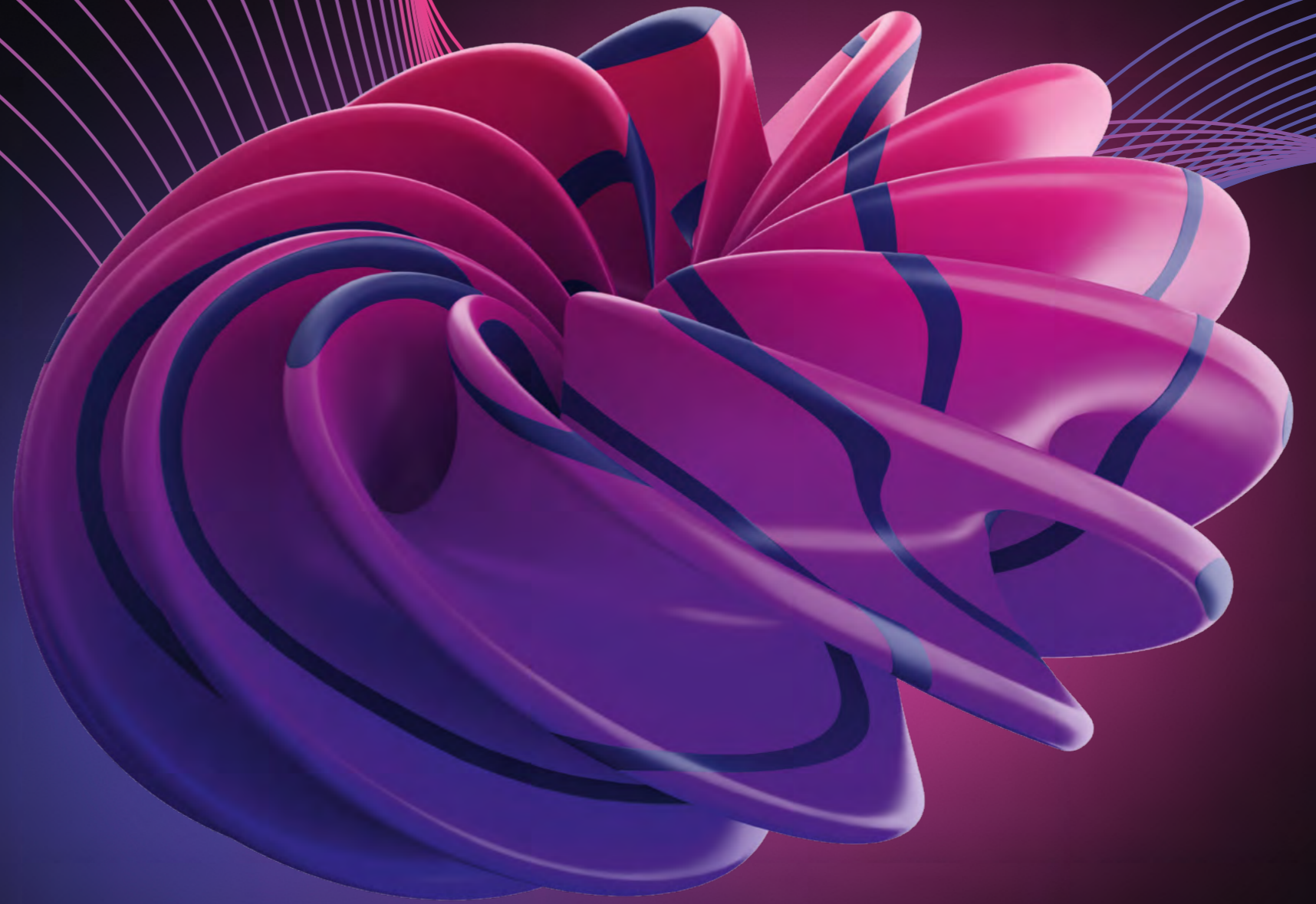
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**#01**

**KEY FINDINGS  
OF THE STUDY**



# #01

## KEY FINDINGS OF THE STUDY

- 1 The innovation activity in Russia is at an active stage of development, but less than 12% of organisations are innovatively active
- 2 The COVID-19 pandemic and current geopolitical challenges boosted the innovative development of companies and import substitution – the number of innovations increased in more than 50% of companies
- 3 In large companies, innovations are developed with the direct support of top management; innovative performance indicators are fixed both at the level of the company's development strategy and at the level of subdivisions' activities
- 4 Most large companies encourage their employees to engage in innovative activities through both financial and non-financial incentives. At the same time, internal motivation is a key factor in implementing innovative activities.
- 5 Acceleration programmes are the most popular tool for finding innovative solutions in large companies
- 6 Most companies have a dedicated innovation unit. Innovation units are led by the most experienced employees with more than 10 years of experience in innovation
- 7 As the key objectives of innovation development, companies most often emphasise ensuring a long-term and sustainable competitive advantage and increasing user loyalty
- 8 In the process of introducing innovations, Russian large companies are open both to external ideas from the market and to the development of internal potential of employees with an entrepreneurial mindset
- 9 An important factor that influences the successful implementation of an external start-up idea is its experience in the company's field of activity, as well as confirmation of realised projects.
- 10 Despite geopolitical challenges, infrastructure facilities continue to support the development of innovative projects, including for the purpose of scaling up in large companies
- 11 In the current conditions, the Russian innovation system needs to be refocused on interaction with friendly countries in order to share experience and promote competition
- 12 The priorities of Russia's innovative development are defined by the Concept of Technological Development until 2030



**#02**

**RETROSPECTIVE  
OF INNOVATIVE  
DEVELOPMENT OF MODERN  
RUSSIA**



## #02

## RETROSPECTIVE OF INNOVATIVE DEVELOPMENT OF MODERN RUSSIA

## PERIOD OF FORMATION OF THE RUSSIAN ECONOMY

After the collapse of the USSR, Russia's economic system underwent significant changes, transitioning from a command to a market-oriented structure<sup>1</sup>. Private companies emerged, striving to maximise profits and capture larger market shares.

Presidential Decree No. 297 "On Measures to Liberalize Prices" (dd. 3 December 1991) was the starting point for shaping the market economy in Russia.

Starting from the early 1990s, there has been a deep systemic crisis and rapid deindustrialisation of the country, marked by changes in the scale and structure of economic activities. Since 1991, the country has grappled with a decline in production and sought ways to regain economic growth<sup>2</sup>. Initially, during Russia's early development stages, companies pursued less risky profit-making strategies<sup>3</sup>. However, with the emergence of competition, innovation became one of the most important directions of business activity.

In 1997, the Concept of Innovation Policy for 1998–2000 was adopted<sup>4</sup>. This marked the first strategic document of its kind in Russia, enshrining fundamental concepts in the field of innovation, such as technological development, scientific and technological progress, innovation, scientific and technological potential, etc. The document underscored that the primary focus of innovation policy should be the development of the country's scientific and technological potential and the creation of conditions for its application in the economy.

The economic activities of businesses and the formulation of the State's innovation policy during this period laid the groundwork for the country's subsequent innovative development.



## RECOVERY GROWTH AND DEVELOPMENT OF THE RUSSIAN ECONOMY

The deep systemic crisis associated with changes in the country's economic system was followed by economic recovery and growth in 1999.

Despite the fact that state and market institutions, on which innovation activity could be based, had not yet been finally established by 2000, about 10% of Russian enterprises were innovatively active in this period<sup>5</sup>.

Initially, innovations were actively developed in companies involved in energy exports. However, later, innovative solutions were introduced in the light and food industries, providing the basis for strengthening Russia's economy. In the early 2000s, the Russian government began to actively stimulate the development of innovations in the country, creating new science and technology centres<sup>6</sup>, innovation funds, and innovation support programmes.

By 2000, about 10% of Russian enterprises were innovatively active

By this time, many other factors contributed to the innovative development of production, including a high level of technical competence and qualification of workers, availability of own potential for creating new products, as well as ideas formed based on foreign experience.

An important role is also played by the innovative atmosphere in society, which is supported by the calls of the country's leadership for the development of innovations, various events, and the creation of innovative development programmes at various levels with the financing of innovative projects<sup>7</sup>. Despite these factors, the country's innovation potential has not been fully realised.

In 2002, the federal target scientific and technical programme "Research and Development in Priority Areas of Science and Technology for 2002–2006"<sup>8</sup> was adopted, which was aimed at developing the national innovation system by identifying technological priorities and supporting related projects, expanding the resource base of scientific, research, and educational centres, integrating science and education in order to develop human resources, etc

Later, in order to implement the Address of the President of the Russian Federation to the Federal Assembly of the Russian Federation, the Russian Venture Company was established to form a national innovation system pursuant to Order of the Government of the Russian Federation No. 838-r<sup>9</sup> dated 7 June 2006.

As the economy was recovering, the Russian GDP reached the pre-reform level by 2008 and amounted to 293,527 rubles per capita<sup>10</sup>. In the same year, the state financed various innovation projects for more than 1 trillion rubles, which is almost twice as much as in the United States. There were more than 8,000 innovation projects in Russian companies<sup>11</sup>.

1 Decree of the President of the RSFSR No. 297 "On Measures to Liberalize Prices" (dd. 3 December 1991)

2 E.B. Lenchuk. Issues of Building the Innovation System of Russia [collection of scientific articles]

3 The birth of corporate systems. How Russian corporations are mastering the tools of working with innovation

4 Decree of the Government of the Russian Federation No. 832 "On the Concept of Innovation Policy of the Russian Federation for 1998–2000" (dd. 24 July 1998)

5 A.E. Dvoretzkaya. Innovation activity of Russian enterprises: analysis of the current situation // International Scientific and Practical Internet Journal "PRO-Economics". No. 7, 2018

6 S.V. Manakhov, M.I. Abramova. Innovation activity in Russia: retrospective and modern trends of development // Industry: economics, management, technology. 2014. No. 5, V. 54

7 B.I. Maksimov. State, dynamics and factors of innovation activity in the sphere of Russian production in the early 2000s // St. Petersburg Sociology Today. 2010. No. 2.

8 Decree of the Government of the Russian Federation No. 605 "On the Federal Target Scientific and Technical Programme "Research and Development in Priority Areas of Science and Technology for 2002–2006" (dated 21 August 2001).

9 Order of the Government of the Russian Federation No. 838-r dd. 7 June 2006.

10 E.B. Lenchuk. Issues of Building the Innovation System of Russia [collection of scientific articles]

11 In 2009, the state spent 1.15 trillion rubles to finance various innovation projects // Rossiyskaya Gazeta



## INNOVATIONS IN THE PERIOD OF OVERCOMING THE CONSEQUENCES OF THE GLOBAL FINANCIAL CRISIS

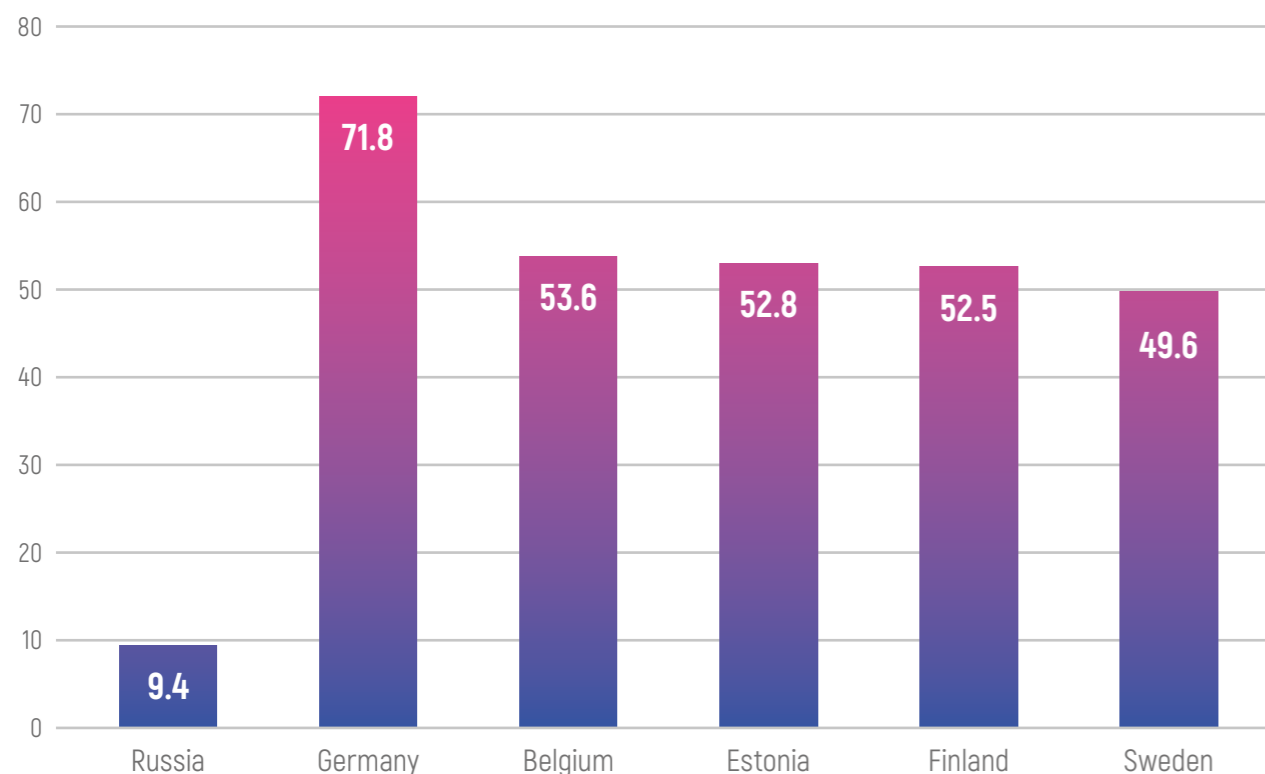
The commendable achievements of the Russian economy did not fully translate into tangible outcomes in terms of economic growth and technological advancement. In 2009, Russia still lagged behind in innovation compared to other countries.

In response to the global financial crisis, the government adopted the Strategy of Long-Term Social and Economic Development of Russia until 2020<sup>12</sup>. This strategy aimed to shift the economy from reliance on commodities to one driven by innovation. It emphasised fostering innovation within existing enterprises, supporting the establishment of new innovative

companies, and coordinating efforts between businesses, academia, and the government to prioritise modernisation and technological advancement in key sectors, thereby creating an environment conducive to innovation and promoting innovative development across various sectors of the economy.

Building upon this framework, the Strategy of Innovative Development of the Russian Federation for the Period until 2020<sup>13</sup> was implemented in 2011. Its objectives included increasing the proportion of industrial enterprises engaged in technological innovations to 50% by 2020, up from 9.4% in 2009. Additionally, it aimed to elevate Russia's share in global markets for high-tech products and services (such as nuclear power, aviation equipment, space technology, special shipbuilding, etc.) to 5–10% by 2020. The strategy also

Innovation activity of Russia in 2009 compared to leading countries, %



Source: Strategy of Innovative Development of the Russian Federation for the Period until 2020

<sup>12</sup> Order of the Government of the Russian Federation No. 1662-r dd. 17 November 2008.

<sup>13</sup> Order of the Government of the Russian Federation No. 2227-r "On the Strategy of Innovative Development of the Russian Federation for the Period until 2020" (dd. 8 December 2011).

targeted a 2% share of Russian high-tech exports in the global market by 2020, along with boosting the gross value added of the innovation sector in the GDP to 17–20% and increasing the share of innovative products in the total volume of industrial output to 25–35% by 2020.

Starting from the 2010s, companies began to develop an innovation management system. In the public sector, corporations commenced implementing innovation development programmes, while private sector companies were formulating relevant strategies. This enabled them not only to grow and remain competitive in the market but also to make a significant contribution to the country's economic development. Some companies established dedicated innovation units tasked with exploring new technologies, developing new products and services, and enhancing existing ones. Many companies also initiated active collaborations with universities and research centres to gain access to the latest developments and technologies.

In 2011, the primary focus of state-owned companies' innovative development programmes was on technological innovations. This emphasis stemmed from the necessity to modernise and technologically upgrade domestic industries, making this trend pertinent not only for state-owned companies but also for private enterprises. However, marketing innovations were not in high demand, with only half of the innovatively active entities investing in organisational innovations.

Starting from 2010, companies started creating an innovation management system and implementing innovative development programmes

Machinery and equipment purchases constituted the largest share of expenditures on technological innovations (41.5%), while research and development of new products, services, and production processes also held significant weight (34.8%).

Expenditures on all other types of innovation were considerably lower, totalling no more than 24% in aggregate<sup>14</sup>.

In 2011, the innovation activities of public and private industrial companies were focused on technological innovations

In 2011, both public and private industrial companies directed their innovation activities towards technological advancements. Consequently, the expenditure on technological innovations in industrial production increased by 21.4% in 2012 compared to 2011; hence, industrial enterprises began investing more in innovation<sup>15</sup>.

Subsequently, in 2014, the State Program "Development of Science and Technology" was adopted for the period until 2020. Significant funds were allocated within this programme to finance scientific research, create new technologies, and develop innovation infrastructure.

In 2016, another document was adopted – the Strategy of Scientific and Technological Development of the Russian Federation<sup>16</sup> – aimed at creating an innovative economy based on the utilisation of new technologies, advancing science and education, and enhancing citizens' quality of life. This document outlined key areas for science and technology development, including the creation of new materials and technologies, intelligent systems and robotic technologies, the space industry, biotechnology and medicine, and the digitalisation of the economy and society.

<sup>14</sup> M.A. Gershman. Programmes of innovative development of state-owned companies: first results // Foresight. 2013. No. 1

<sup>15</sup> T.I. Chinaeva. Technological innovations in the Russian Federation: statistical analysis // Russia: trends and prospects for development. 2016. No. 11-1

<sup>16</sup> Decree of the President of the Russian Federation No. 642 "On the Strategy of Scientific and Technological Development of the Russian Federation" (dd. 1 December 2016).

Despite the measures implemented since 2013, there has been a steady decline in the proportion of innovative products (from 9.2% to 5.3% in 2019) and expenditure on technological innovation (from 2.9% to 2.1% in 2019). Additionally, the percentage of companies involved in organisational, environmental, and marketing innovation has decreased, with environmental innovation dropping almost threefold (from 1.6% in 2014 to 0.6% in 2019)<sup>17</sup>.

The consequences of the crisis have hindered the full implementation of the stated goals, leading to several priorities serving merely as a basis for the creation of new strategic documents in the fields of economy and innovation. During this period<sup>18</sup>, 88% of scientists and businessmen found it challenging to ascertain whether innovation projects in Russia were implemented and financed in 2009<sup>19</sup>. Furthermore, the majority of the Innovation Strategy's targets were not met, with only four out of 45<sup>20</sup> indicators reported as achieved by the end of its implementation in 2020. The industrial production index decreased in 2020, amounting to 97.9% of the 2019<sup>21</sup> level.

A notable aspect of the crisis period was the increase in the innovation activity of the state, surpassing that of large businesses<sup>22</sup>.

The consequences of the global financial crisis did not allow to fully implement the innovation goals set by the state

## INNOVATIONS DURING THE COVID-19 PANDEMIC

The COVID-19 pandemic has also significantly impacted the innovation activities of Russian companies. Planning and decision-making systems have proven ineffective in the face of restrictions and prohibitions on movement. Many companies were compelled to transition to remote working and reassess their approach to conducting business<sup>23</sup>.

The sectors most affected by the pandemic were the oil and gas industry, airlines, tourism, industrial production, construction and real estate, banks, retail, restaurants, and hotels due to restricted movement and closed borders. This also led to business interruptions and production halts, as well as reduced demand for certain goods and services.

The COVID-19 pandemic has become both an obstacle to the development of companies and has also created incentives for innovative development.

However, the pandemic has also stimulated the development of new technologies and innovations, for example, in medicine, telecommunications, e-commerce, and other areas..

The growth in corporate innovation has been driven not only by increased demand for certain types of goods and services, but also by the willingness of large corporations to adapt to the new realities and the necessity to digitise key business processes to meet customer needs and maintain smooth-running supply chains.



Ekaterina Petrova

Director of GenerationS, Corporate Innovation Development Platform

Some companies have shifted to the production of medical devices and protective equipment, which has also contributed to the development of the domestic industry. The pandemic has also triggered the strengthening of government support for innovative projects and programmes aimed at developing the digital economy and creating new jobs.

As a result of joint efforts of the state and the business community, the volume of expenditures on the development of innovation activities in 2020 increased by 8.2% compared to 2019 and amounted to 2.1 trillion rubles<sup>24</sup>.

In general, according to Rosstat<sup>25</sup>, in the period from 2017 to 2021, there are both rises and falls in the level of the innovation activity of Russian organisations, including within the framework of types of economic activity, which indicates the heterogeneity of the innovation activity of enterprises.

According to the data for the year 2021, innovation activity was carried out by 11.9% of large and medium-sized organisations. The most innovatively active organisations are in such sectors as industrial production (17.4%), services (10.5%), manufacturing (17.4%), telecommunications, and IT (12.2%). At the same time, there are positive trends in all sectors of the Russian economy<sup>26</sup>.

<sup>17</sup> A.G. Zeldner, V.S. Osipov. Innovation strategy of Russia 2011–2020: results and management problems // CITISE. 2020. No. 4. V. 26

<sup>18</sup> Russia's development concept until 2020 turned out to be unfeasible. Why did the trajectories of the 2008 national goals and the country's actual development diverge // RBC

<sup>19</sup> In 2009, the State spent 1.15 trillion rubles to finance various innovation projects // Rossiyskaya Gazeta

<sup>20</sup> Yu.A. Petrovskaya, I.V. Shchekina. Implementation of the Strategy of Innovative Development of the Russian Federation until 2020: results and prospects // Vestnik of NSUEM. 2018. No. 4.

<sup>21</sup> Innovative development of the Russian Federation in 2020

<sup>22</sup> In 2009, the State spent 1.15 trillion rubles to finance various innovation projects // Rossiyskaya Gazeta

<sup>23</sup> Adaptation to the new innovative reality: trends, technologies, prospects.

<sup>24</sup> Innovative response to the consequences of the pandemic

<sup>25</sup> Science, innovation and technology // Rosstat

<sup>26</sup> Innovation activity indicators



**Innovation activity of Russian organisations in the period from 2017 to 2021<sup>27</sup>, %**

Types of economic activity	2017	2018	2019	2020	2021
Processing enterprises	26.2	23.2	20.5	21.3	23.1
Extraction of minerals	8.9	7.9	6.8	6.8	7.8
Supply of electric power, gas and steam; air conditioning (except for sale of electric power; sale of gaseous fuel supplied through distribution networks; sale of steam and hot water (heat energy)	8.4	6.9	8.1	9.9	9.0
Water supply; wastewater disposal, organisation of waste collection and utilisation, pollution elimination activities	4.2	3.4	4.6	5.8	5.6
Construction			3.6	3.9	4.5
Transportation and storage			2.8	4.0	3.9
Publishing activity	2.6	2.1	2.5	3.8	5.1
Telecommunication activities	16.6	12.4	12.6	13.1	12.7
Computer software development, consulting services in this field and other related services	11.4	10.1	11.1	13.2	15.1
Information technology activities	7.1	5.0	5.5	10.2	8.0
Activities in the field of law and business accounting	2.6	2.8	1.9	4.2	3.7
Activities of head offices; management consultancy	3.9	4.0	3.6	5.2	4.4
Activities in the field of architecture and engineering design; technical testing, research and analysis	13.0	12.4	9.7	10.7	10.9
Research and development	66.7	61.4	51.3	51.1	47.5
Advertising activities and market research	2.2	3.7	3.0	2.6	3.3
Other professional, scientific and technical activities	1.1	2.3	4.3	8.8	9.3
Health care and social services			5.3	8.6	
<b>Innovation activity in general</b>	<b>14.6</b>	<b>12.8</b>	<b>9.1</b>	<b>10.8</b>	<b>11.9</b>

Source: Rosstat data

<sup>27</sup> Innovation activity is determined in accordance with the methodology for calculating the indicator, as approved by Order of Rosstat No. 818 "On Approval of the Methodology for Calculating the Indicator "Level of Innovation Activity of Organisations" (dd. 27 December 2019)

**FURTHER DEVELOPMENT OF INNOVATION IN RUSSIA**

In 2022, Russia ranked 47th out of 132 countries in the Global Innovation Index<sup>28</sup>. There is growth in indicators such as domestic market development, creative activity, human potential, and science infrastructure. However, Russia still lags behind other countries in some areas. For example, Russia ranks only 82nd in the field of investment in innovation and commercialisation of scientific ideas. Additionally, there is insufficient use of new technologies in production and service delivery.

2022, Russia ranked 47th in the Global Innovation Index

The impediments to innovative development include underdeveloped regulation, environmental sustainability concerns, a weak business environment, and the knowledge level of employees<sup>29</sup>.

Amidst the prevailing geopolitical landscape, the Russian Government persistently reinforces its support for innovation activities. This includes providing financial assistance to enterprises operating in priority industrial sectors, alongside technological small businesses and startups.

The innovative development of Russia is still in its formative stage. The state employs various methods and measures to bolster innovation activity across sectors of the economy. This includes incentivising the establishment of hightech industries, funding research and development programmes, and fostering a community of technological entrepreneurs. However, despite these efforts, the level of innovation activity among companies remains relatively low. This underscores the need to explore additional mechanisms to stimulate business entities.

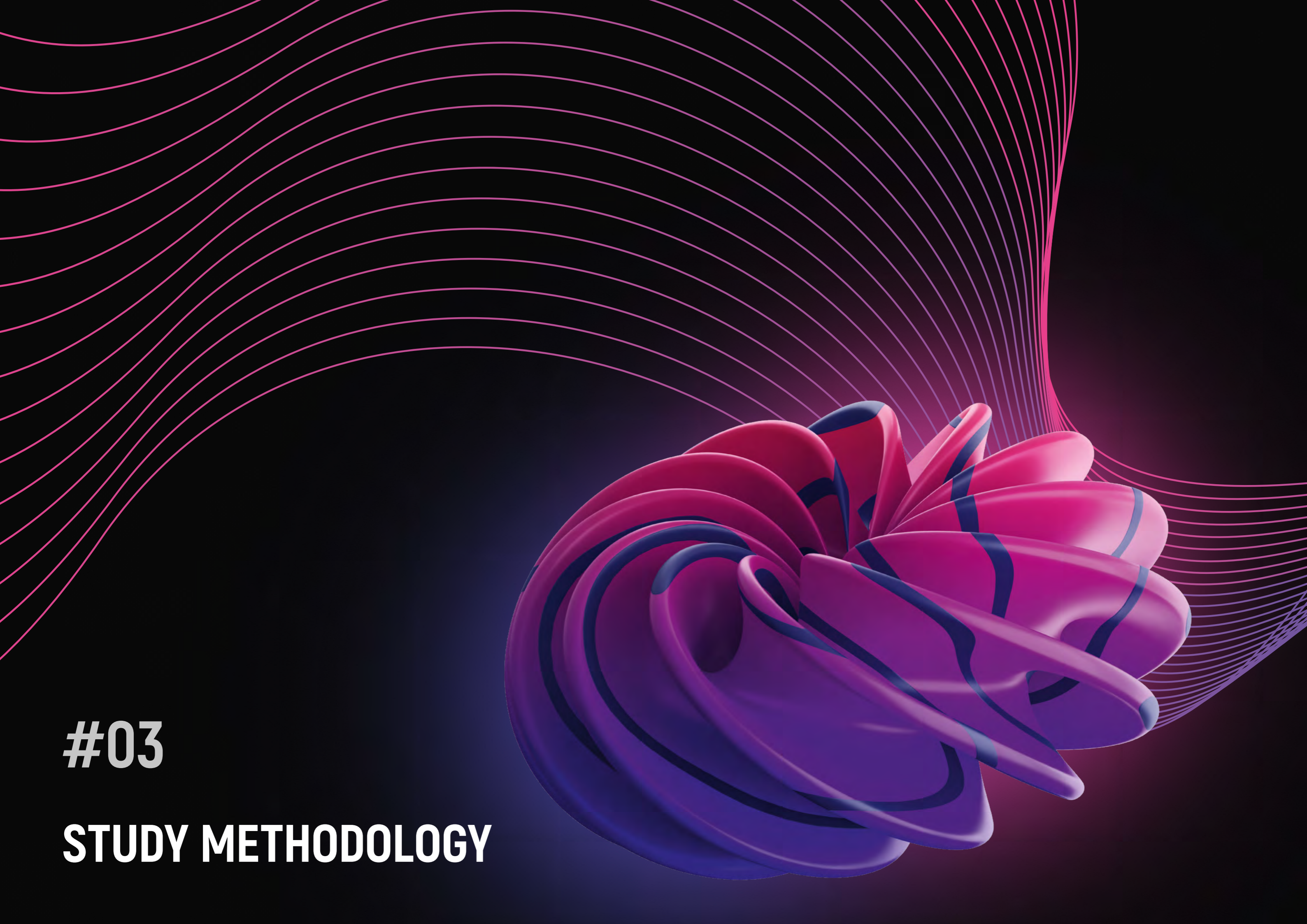


**Ekaterina Petrova**  
Director of GenerationS, Corporate Innovation Development Platform



<sup>28</sup> Global Innovation Index 2022

<sup>29</sup> Global Innovation Index results: Russia ranks 47th // RBC



**#03**

**STUDY METHODOLOGY**



# #03

## STUDY METHODOLOGY

To enact the innovation agenda successfully, it's crucial to consider the activities of large companies that lead their respective industries. While small technology firms and start-ups typically take advantage of state-provided support measures, industry leaders, in order to maintain their competitiveness, often pursue the innovation agenda independently. They develop their own innovative mechanisms, prioritising best practices and drawing from their own experiences.

Such companies can serve as guides for innovation for small and medium-sized businesses. Their experiences, best practices, and results in innovation activities can inform decisions regarding innovation development within a company, potentially driving sustainable growth and enhancing competitiveness.

The aim of this study is to evaluate the state of innovation activity among the largest Russian companies across various economic sectors and to identify best practices within the framework of the "open innovation" model.

The subject of the study comprises companies that applied for participation in the GenerationS Innovation Award 2023, are actively involved in innovative activities, have an annual turnover of at least 800 million rubles, employ at least 250 individuals, possess an innovative development strategy, and demonstrate tangible results of innovative activities along with confirmed cases within the framework of the "open innovation" model.

### GIA AWARD PARTICIPANTS

Annual turnover  
**> 800**  
MILLION RUB

Employees  
**> 250**  
PEOPLE

Innovation strategy

**OPEN INNOVATION MODEL**

The subject of the study encompasses the innovation activities of companies, focusing on indicators and outcomes at both the company-wide level and within specific entities such as innovation units and innovation leaders. This analysis extends across various sectors including fintech, IT, retail, telecommunications, energy, aviation, machine building, ship-building, and transportation.

The study draws on data from over 50 companies<sup>30</sup>, whose characteristics are outlined in the study's scope. This data was collected through a questionnaire survey conducted between 11 January and 31 March, 2023. The questionnaires comprised both open-ended and closed-ended questions, addressing both quantitative and qualitative aspects.

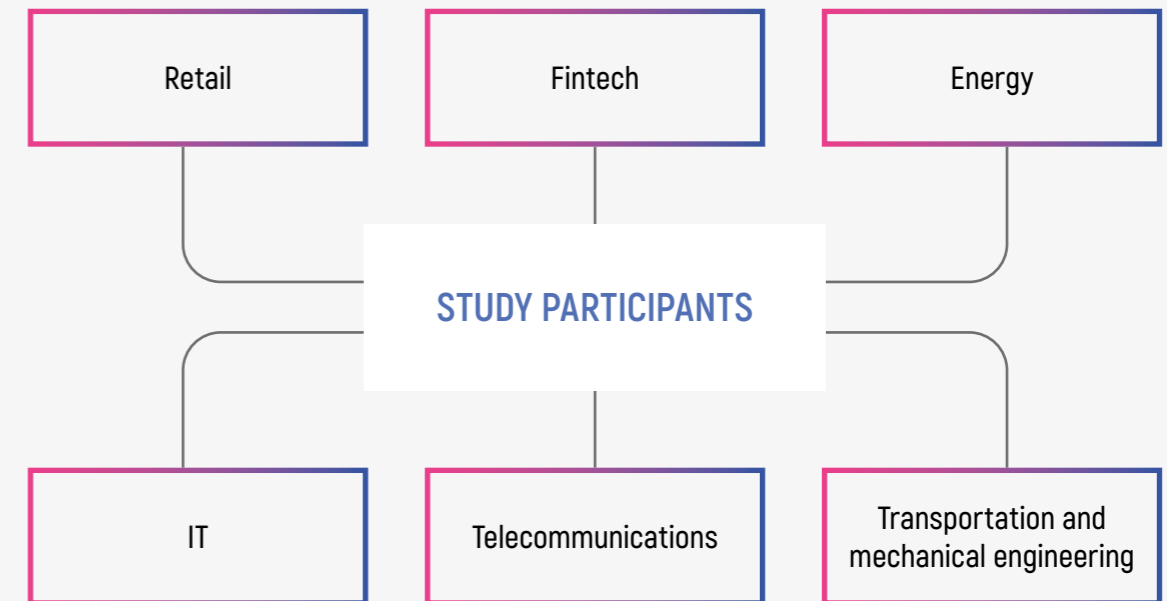
### The companies were queried on several key aspects:

- The framework of innovation activity
- The nuances of innovation management and the crucial performance indicators
- The contribution of innovation initiatives to the company's progress
- The level of support provided by company management for innovations

Strategies for identifying and integrating innovative solutions. Moreover, the companies responded to inquiries regarding the innovation leader and team, as well as the challenges of implementing innovations amidst geopolitical complexities.

The study also scrutinised the innovative solutions and practices adopted by the companies. These solutions, implemented either independently or in collaboration with partners, had positive impacts on specific divisions or the entire company. They enhanced product or service quality and facilitated the substitution of foreign products with domestic alternatives.

### Breakdown of companies by lines of business



Source: GenerationS data

<sup>30</sup> Some findings of the study are based on the answers of a smaller number of respondents due to differences in the profile of activities and unwillingness to disclose internal data that contains proprietary information.



**#04**

# **CURRENT STATE OF CORPORATE INNOVATION IN RUSSIA**

4.1. Innovative company profile / page 28

4.2. Profile of innovation team and innovation leader / page 34

4.3. Factors shaping the innovativeness of companies / page 38



# #4.1

## INNOVATIVE COMPANY PROFILE

The study analyses the structure and specificities of companies' activities in innovation management, along with the effectiveness of decisions made and innovation projects implemented.

### INNOVATION STRATEGY

Having an innovation strategy is one of the factors determining the development of an organisation<sup>31</sup>. Strategies may vary in scope: they can be integrated into the organisational development strategy as a separate section, or they can exist as standalone strategic documents.

**100 %**

All study participants have some form of innovation strategy.

These strategies include sections on digitalising and automating company operations, enhancing production efficiency, developing environmental technologies, and creating customer-friendly services, among others. Depending on the specifics of the organisation's activities, the priorities of innovative development may vary.

### INNOVATIVE PERFORMANCE INDICATORS AND THE ROLE OF TOP MANAGEMENT

Any strategic development document implies tracking the progress of its implementation; therefore, efficiency and effectiveness indicators are crucial in analysing strategy implementation. The success of innovation also depends on support from the company's management.

Among the companies analysed, the overwhelming majority of top management (92%) supports the company's innovation activities and acknowledges that innovation holds a significant place in the organisational structure. The remaining answer options, where innovations are partially supported or not supported at all, each account for 4% of responses.

### Support of innovation activity by the company's top management

**92 %**

Innovation constitutes a significant aspect of the company's organisational structure and receives official support from the company's top management.

**4 %**

Initiatives receive partial support.

**4 %**

While innovation projects lack official support.

Source: GenerationS data

Thanks to the comprehensive efforts of the innovation team at RESHETNEV JSC, the enterprise underwent systemic transformation. This included transitioning to a fundamentally new industrial model of digital design and spacecraft development, alongside the automation of serial production. As a result, RESHETNEV JSC emerged as a leader in driving global changes within the domestic space industry, enabling swift responses to external challenges such as: creation of multi-satellite constellations of small spacecraft:

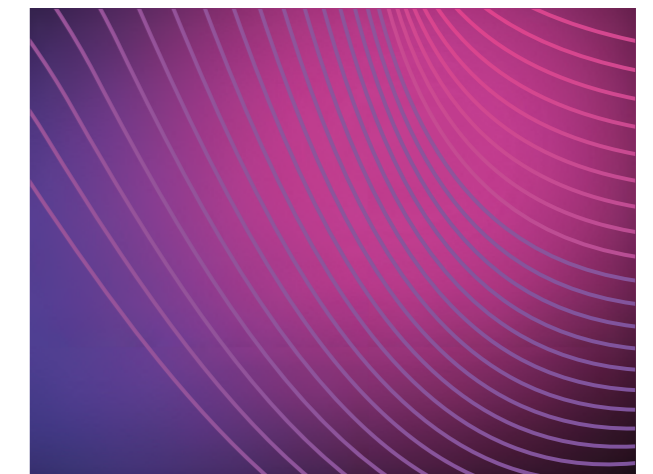
- The establishment of multi-satellite constellations of small spacecraft.
- The adoption of robotic flow line production technologies.
- Ensuring sovereignty in critical technology domains.

Performance indicators of various levels and scopes are integrated into the structure of the strategies. Some are expressed in monetary terms, while others relate to assessing the impact on the organisation and the quantity of solutions to be implemented. For instance, performance indicators such as innovation-driven reduction of CAPEX per project, the number of contracts signed by startups with the company, the number of pilot initiatives, the amount of R&D expenditures, and employee training in innovation methodologies, among others, may be established at the organisational level.

These examples of Key Performance Indicators (KPIs) demonstrate that innovation activities are not solely focused on developing innovative solutions in-house through employee training and allocating funds for scientific research. They also involve collaboration with external partners and startups<sup>32</sup>.



**Yevgeny Nesterov**  
Director General  
of RESHETNEV JSC



<sup>31</sup> D.V. Savoteev. Innovation development strategies: concept, substance and classification // Social Theory

<sup>32</sup> More details in Section 5 of this study

Our primary focus in the realm of innovation is to establish a comprehensive innovative ecosystem, enabling Rosatom to lead in the development of new technologies and enhancements to existing ones. This involves fostering partnerships with other companies, scientific institutions, and startups. At ROSATOM, key indicators of innovation efficiency include:

- The proportion of innovative products and services in the total sales of products and services within the sector.
- The number of outcomes from intellectual activities.
- The level of expenditure on research and development compared to the volume of output of innovative products and services.

As of 2022, innovative products within the Rosatom State Corporation account for 23.9% of the total sales volume, surpassing the planned value of 21.5%. Additionally, research and development costs relative to the total output of innovative products and services stand at 13.86%.



**Alexander Shvaley**  
Deputy Director General for Innovations, Innohub LLC (Rosatom State Corporation)

## MOTIVATION OF EMPLOYEES AND THEIR INVOLVEMENT IN INNOVATION ACTIVITIES

On average, approximately 30% of company employees participate in innovation processes. Moreover, over half of the companies incorporate performance indicators related to innovation in evaluating the efficiency of their middle management. Specifically, 56% of the companies have officially established innovation Key Performance Indicators (KPIs), while 38% have informally defined innovation KPIs. Only 6% of the companies have not established such performance indicators.

~ 30 %

A considerable proportion of employees in large companies participate in innovation processes.

**Innovative Key Performance Indicators (KPIs) for middle management are available.**

56 %

Formally established

38 %

Informally established

6 %

Not established



Source: GenerationS data

In the vast majority of cases (92%), employees undergo training to enhance their innovation skills. Only 8% of companies do not provide innovation training.

## Educational courses/events in the field of innovation in the company

92 % Yes      8 % No



Source: GenerationS data

In order to create incentives to work with innovation, 86% of companies have elaborated and use systems for motivating employees to innovate.

## Availability of a system to motivate employees to innovate

86 % Available      14 % Non-available



Source: GenerationS data

Employees are motivated by both financial and non-financial incentives, with non-financial incentives being predominant.

## The most common types of employee incentives

### Financial incentives include:

- Performance-based bonuses
- Valuable gifts
- Motivational trips

### Non-financial incentives encompass:

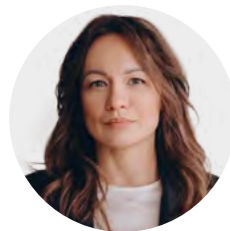
- Development of own projects
- Mentorship
- Participation in closed events
- Placement on the honours board
- Presentation of commendations and diplomas
- Horizontal rotation/promotion

Source: GenerationS data

We don't advocate for formal innovation Key Performance Indicators (KPIs) within the bank's divisions. Instead, we find informal motivation to be more effective, such as acknowledging the most active and engaged Alfa People employees with distinctive marks on the corporate portal ("achievements"). We offer two types of "achievements".

The first type pertains to the popularity of innovation in the bank. Acquiring such an "achievement" is straightforward: you can achieve it by providing an expert comment on news in Fintech Digest or delivering an engaging presentation at the Innovation Council as a speaker. The second type consists of "achievements" for outstanding excellence in innovation. To earn this, considerable effort is required: launching several pilot projects or becoming an innovation ambassador in your business line. A captivating image is crucial for "achievements"; for instance, we award rockets pointing upwards for launched pilot projects. Another strategy: we reward not only the initiative leaders but also their managers for active involvement, as they often drive the process.

"Achievements" yield positive results! Soon after the first rockets appeared on the portal, colleagues flooded in with inquiries: "How can I earn one of these?" This spirited interest has already sparked numerous new pilot projects.



**Ekaterina Solovyova**  
Head of Innovation Office of Alfa-Bank JSC

## WAYS TO IMPLEMENT AND SEARCH FOR INNOVATIVE SOLUTIONS

To implement innovative solutions, companies utilise various tools, including accelerator programmes and hackathons, in-house research and internal development implementation, establishment of joint ventures and R&D centres, technology scouting, and creation of corporate venture funds.

Accelerator programmes are frequently employed by companies as a means to discover innovative solutions. In 2022, 69% of companies utilised accelerator programmes to identify technological solutions for subsequent implementation.

### Accelerators 2022



Source: GenerationS data

The methods of conducting accelerator programmes vary among companies: 39% conducted accelerator programmes independently, 28% organised them exclusively with partners, and 33% conducted accelerator programmes both independently and in collaboration with partners

### Ways of conducting accelerators



Source: GenerationS data

MTS StartUp Hub was initiated 5 years ago, precisely with the launch of an accelerator. Since then, we have conducted 7 accelerator programmes and established 4 incubators, resulting in the development of over 7,000 startups. Concurrently, we introduced a corporate venture fund, innovation labs, as well as scouting and analytics divisions.

As we progressed, we decided to transition from conveyor programmes for working with startups and frequent accelerator sets to a more targeted approach of searching for and implementing solutions – and investing in them. This approach, known as 'tailor-made', involves MTS StartUp Hub examining the requirements of business verticals, analysing the industry landscape and international practices, and subsequently identifying a suitable solution in the market. The team then aligns the needs of the MTS ecosystem with the features of an off-the-shelf product.



**Dmitry Kurin**  
Director for Innovations and Investments of MTS PJSC, CEO of MTS StartUp Hub





# #4.2

## PROFILE OF INNOVATION TEAM AND INNOVATION LEADER

### INNOVATION TEAM OF THE ORGANISATION

The employees of any company are its main asset, as it is their work that determines the company's success and effectiveness in achieving its goals

**79 %**

Of the companies surveyed, have an innovation unit in their organisational structure

In some organisations, such units are divisions within the structure of management departments; in others, they are stand-alone departments or even subsidiaries with more detailed internal division depending on the areas of activity within the company. The remaining part of the companies [21%] do not have a dedicated innovation unit, but there is a team that performs the innovation unit functions Innovation centre/hub in the company.

### Innovation center/hub in the company

**79 %**

Available

**21 %**

No, but there is a team

Source: GenerationS data



The Head Company of MMC Norilsk Nickel has established a so-called innovation vertical subordinate to the Vice President for Innovation.

Its structure includes departments responsible for the development and implementation of digital technology solutions, the development of new products and technological innovations, as well as innovative development and commercialisation of inventions.

Innovation teams of the sites, which are crossfunctionally subordinated to the VPI, have also been established and are successfully implementing projects.

We have a project-based approach. All decisions are made in cross-functional teams, each idea goes through the stages of conceptualisation and prototype testing.

Successful prototypes move to the implementation stage. Innovation is all about the ability to work with risk, speed of decision-making and rational use of company resources.



Vladimir Klimarev

Head of Methodology, PJSC MMC Norilsk Nickel

Generally, the team's performance has a significant contribution to profit or revenue growth – in 90% of cases<sup>33</sup>, the unit's innovation management activities have a significant impact on the overall development of the company.

### Contribution of the innovation team to the company's development:

**90 %**

The results of innovation activities have a significant contribution to the overall development of the company (expressed in monetary terms in revenue/profit).

**5 %**

Innovation activities have some contribution to the overall development of the company (insignificantly expressed in monetary terms in revenue/profit).

**5 %**

Innovation activities are not assessed; the results have an insignificant impact on the overall development of the company (no monetary assessment is made).

Source: GenerationS data

On average, the company's innovation unit piloted about 50 projects in 2022, of which 12 were scaled up and implemented. This indicates that about 25% of the projects implemented by the innovation unit prove their effectiveness and have a positive impact on the achievement of the company's strategic objectives.

**~ 25 %**

Approximately 25% of projects piloted by the innovation unit were scaled up and implemented

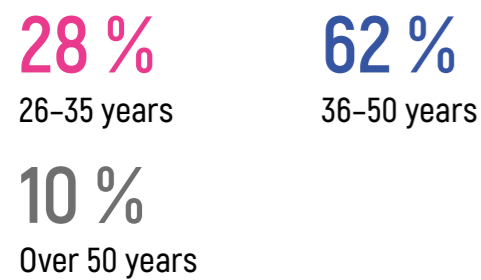
<sup>33</sup> The conclusions are based on the data submitted as part of participation in the GIA Award in the 'Innovation Team of the Year' category. The sample included 21 companies.

## INNOVATION LEADER PROFILE

The success of an innovation team in a company largely depends on the manager who leads it. According to the study data, the profile of an innovation team leader is as follows:

In 62% of cases, the age of the innovation unit head is between 36 and 50 years old. They possess higher education, at least at the level of a specialist or master's degree.

### Age of the company's innovation leader



Source: GenerationS data

### Level of education of the innovation leader



Source: GenerationS data

In 60% of cases, leaders have more than 10 years of innovation management experience, with no leader having less than 3 years of innovation management experience. This shows that in large innovative companies, regardless of their field of activity, innovation is managed by experienced specialists.

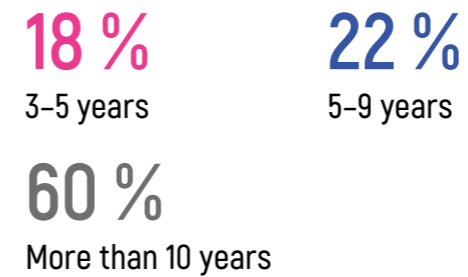
Innovation leaders in organisations are personally responsible for the achievement of the company's innovation goals: 72% of managers have key performance indicators related to innovation.

Gazprom PJSC has established corporate-wide Key Performance Indicators (KPIs) to assess the performance of the Management Board members and other executives and to motivate members of the company's Board of Directors. One of these indicators is an integrated key innovation performance indicator, which reflects the sum of assessments of the achievement of target values of indicators, taking into account the specific weight of each of them:

- Number of patents received during the reporting year
- Reduction of specific greenhouse gas emissions in CO2 equivalent
- Share of Research and Development (R&D) expenditures in revenue
- Assessment of the quality of development/annual implementation of the Innovation Development Programme<sup>34</sup>.

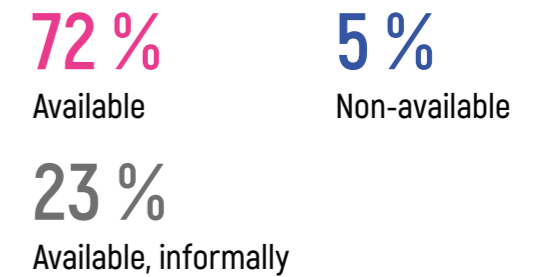
<sup>34</sup> Annual Report of Gazprom PJSC.

### Leader's experience in innovation management

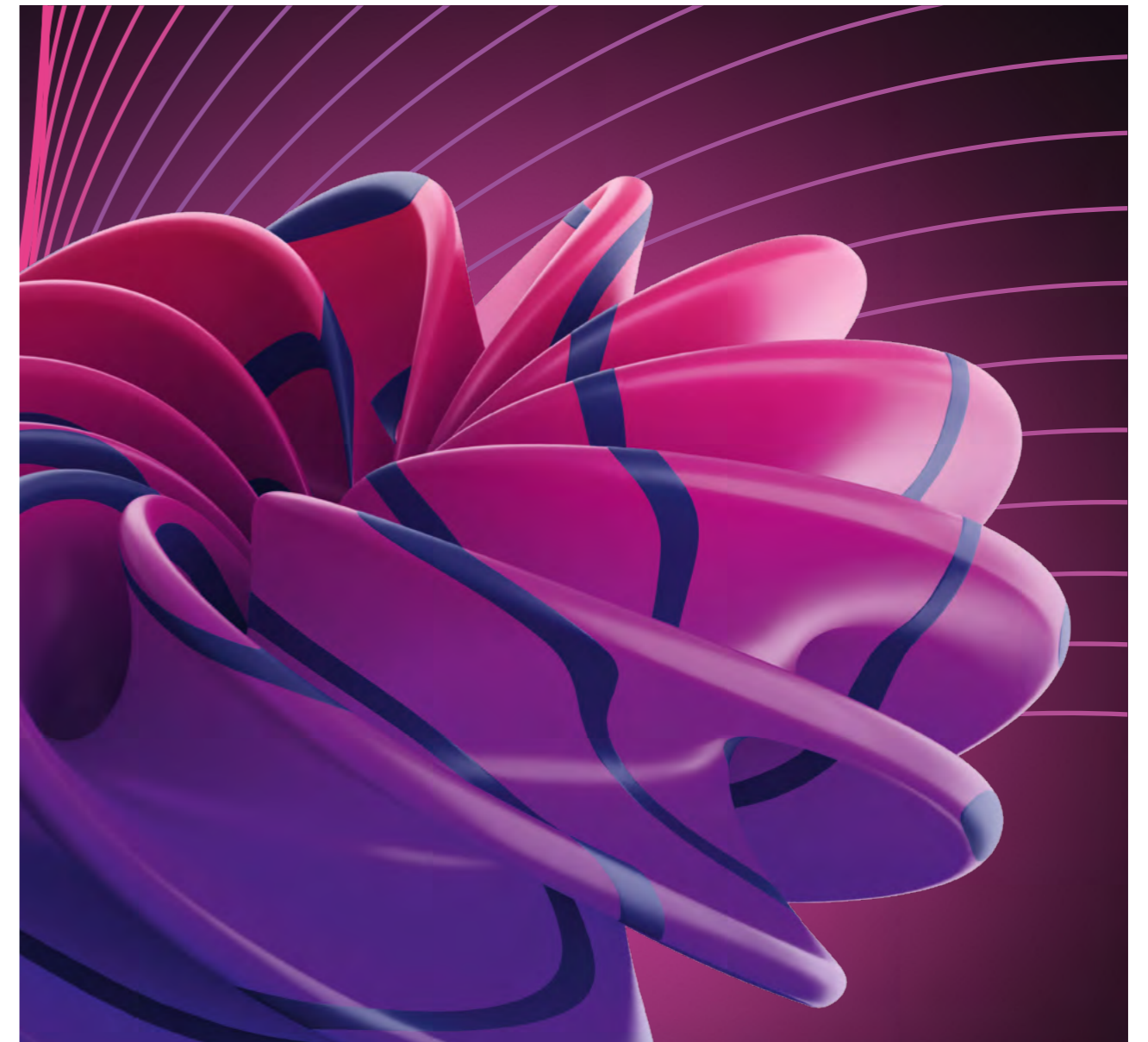


Source: GenerationS data

### Availability of innovation KPIs for the innovation leader



Source: GenerationS data





# #4.3



## SHAPING THE INNOVATIVENESS OF COMPANIES

The literature devoted to the analysis of factors affecting the results of innovation activity of companies distinguishes several groups of innovativeness factors<sup>35</sup>.

Individual	Group/team level	Organisational
<ul style="list-style-type: none"> <li>Personal characteristics</li> <li>Motivation (internal and external)</li> <li>Intelligence and experience</li> </ul>	<ul style="list-style-type: none"> <li>Team climate</li> <li>Group structure</li> <li>Leadership type</li> <li>Types of tasks</li> </ul>	<ul style="list-style-type: none"> <li>Organisational structure</li> <li>Organisational culture</li> <li>Strategy</li> <li>Resources</li> </ul>



35 Zennouche, M., Zhang, J. and Wang, B.W. (2014) 'Factors influencing innovation at individual, group and organisational levels: a content analysis', Int. J. Information Systems and Change Management, Vol. 7, No. 1, pp. 23–42

### KEY PERFORMANCE INDICATORS

Key performance indicators as an individual factor related to external motivation for innovation activities was measured as a binary variable with a value of 1 when there are formal or informal performance indicators related to innovation activities, and 0 when there are none.

A number of studies have found that motivation affects not only the quantity but also the quality<sup>36</sup> of innovation activity, so the study tested this factor at two levels: innovation leader and middle management. Since virtually the overwhelming majority of leaders have KPIs for innovation activities, we have additionally decided to compare the correlation between formal and informal KPIs and the number of internal and external startups launched. For top management, no significant difference was found between formal and informal KPIs in their correlation with the number of projects. We may conclude that the number of new projects is not affected by the availability of a formal system of performance indicators if the leader is in charge of the company's innovation activities in general. Based on the results of the analysis of textual answers about the types of additional motivation, we can draw a conclusion about the prevalence of financial incentives for employees who suggest innovations. One of the reasons for this effect is the importance of internal motivation of people when implementing innovative projects, which has already been mentioned<sup>37</sup>.

At the same time, cash bonuses and payments represent pure external motivation, which is a supplementary rather than the main tool for innovation activity of a particular employee or innovation leader.

36 Sauer mann, H. and Cohen, W.M. (2008) What Makes them Tick? Employee Motives and Firm Innovation, NBER Working Paper N.14443.

37 Sauer mann, H. and Cohen, W.M. (2008) What Makes them Tick? Employee Motives and Firm Innovation, NBER Working Paper N.14443.

Internal motivation of the innovation leader and the company's employees is one of the key factors for the company's innovative development

For a more in-depth study of the companies' innovation environment, the second stage involved a qualitative analysis of the collected textual data from several companies that provided detailed descriptions of introducing innovations in various areas

### GOALS AND OBJECTIVES OF COMPANIES IN THE FIELD OF INNOVATION

The key objectives of innovation development for companies often revolve around ensuring long-term and sustainable competitive advantages and increasing user loyalty. All participating companies in the study can be broadly divided into two sectors: digital companies (including banks, retail businesses, and companies actively implementing digital innovations) and manufacturing companies focused on enhancing their production process chains.

Both groups share a common goal of optimising business processes. Several companies achieve this by leveraging digital solutions to transform processes, such as addressing high labour costs for internal approvals at various stages of the procurement process. This objective is further supported by the unique context of the Russian economy.

In the context of the crisis and sanctions, the issue of improving the company's operational efficiency comes to the forefront

## INNOVATION TOOLS

Innovation-oriented corporations have drawn upon best practices from the field of entrepreneurship to select and integrate new ideas and solutions into existing business processes. Many of them mentioned pilot testing of ideas and/or startups refined and developed in an in-house accelerator when describing cases of internal innovation.

It can be concluded that Russian large companies are receptive to both external market ideas and the internal development potential of employees with an entrepreneurial mindset. Most of the described cases and presented solutions aimed specifically at engaging with the company's employees: to enhance communication convenience and quality, create a unified system for new ideas, and expand opportunities for everyone to participate in organisational development and product creation. To this end, corporations organised internal training for employees to promote a culture of entrepreneurship and innovation.

Russian large companies are open to both external ideas from the market and the development of internal potential among employees with an entrepreneurial mindset.

In addition to investment in employee training, the general drivers of growth include:

- Establishing an internal culture of innovation
- Adopting the open innovation model, collaborating with external startups and research centres
- Setting ambitious goals (such as becoming market leaders, creating new products, significantly reducing costs, etc.)
- Receiving support from the innovation leader

Internal startup teams typically comprise employees from various departments, with involvement from scientists and university staff in numerous projects. Cross-functional innovation teams yield more productive results and innovative solutions.

"Combining functions with multifaceted expertise enabled us to develop a comprehensive solution in a short period of time, meeting the company's high standards for customer service, user-friendliness for employees, fault tolerance, and performance of information systems and services"

Studies have confirmed that for innovation to occur, employees often need to communicate and interact with others, both within and outside the organisation. Therefore, they require social skills to effectively communicate with diverse individuals<sup>38</sup>.

An important aspect of innovation development within large corporations involves interacting with external partners and engaging third-party intellectual resources, primarily human resources, to generate and implement innovative ideas. The projects with which collaborations emerged are participants or finalists of corporate accelerators organised by large companies.

In most cases, the successful integration of the startup's proposed solution into the company's business processes depended on the high involvement of both parties in the project (representatives of the project team from the corporation and the external startup's team). Additionally, according to company representatives, the successful implementation

of the idea was influenced by the partner startup's experience in its field, as demonstrated by the implemented projects.

The success of innovation is determined by the active involvement of both the corporation and the external startup company.

The corporation's involvement is determined by direct support from management, including the CEO and most top managers.

Based on the analysis of innovation cases in large companies across various fields, the significant role of the identified key factors was confirmed<sup>39</sup>.



38 Mann, L. (2005) Leadership, Management, and Innovation in R&D Project Teams, Praeger, London.

39 Zennouche, M., Zhang, J. and Wang, B.W. (2014) 'Factors influencing innovation at individual, group and organisational levels: a content analysis', Int. J. Information Systems and Change Management, Vol. 7, No. 1, pp. 23-42



## FACTORS INFLUENCING INNOVATION DEVELOPMENT

Individual factors	Supporting quotes
<b>Personal characteristics</b>	"Can say that I have been involved in innovation development even before I got a job in the corporation" (Innovation Leader)".
<b>Motivation</b>	"Based on the results of the internal accelerator, for example, an employee can continue to develop the solution as an internal product: to become its leader and build a team or to open their own legal entity and work [with the company] as a partner". "If an employee proposed a breakthrough idea, that employee becomes a partner and a product owner".
<b>Intelligence and experience</b>	"There is a cross-functional team working on product development and implementation, consisting of specialists in marketing (analysts and product managers), R&D (developers, technicians), production and sales". "To bring the idea and concept to life, a working group consisting of high-level developers and designers with extensive experience has been established". "The scientific and technological knowledge gained from the project has found its way into new innovative solutions".
Group factors	Supporting quotes
<b>Team climate</b>	"34% of participants re-engage with the internal innovation programme—employees promote it themselves in their departments, and tell their colleagues about it. In this way, the culture of internal entrepreneurship is built up".
<b>Group structure</b>	"...we have put innovation in the hands of businesses: it is the teams that are searching for and piloting technological solutions that will subsequently implement them. ...creating training programmes for trackers and tutors, creating and approving a training programme for product owners to meet corporate requirements".
<b>Leadership type</b>	"Thanks to the involvement of top management, representatives of the holding company's functional areas and organisations interested in development were included in the project's working group".
<b>Types of tasks</b>	"We prepare colleagues from functional units to independently implement digital projects of their division".

Organisational factors	Supporting quotes
<b>Organisational structure</b>	"A separate division, the Innovation Office, ensures the system is always running and is constantly improving processes and services".
<b>Organisational culture</b>	"Promoting the culture of agro-technical entrepreneurship and innovation, educational activities and organisation of measures to support investment market participants in the agricultural industry. The team [of the company's innovation unit] is open to sharing its experience with other companies in terms of developing internal entrepreneurship tools".
<b>Strategy</b>	"The company's digital transformation strategy implies not only the introduction of advanced technologies and solutions into all business processes of the company, but also the development of internal competencies of employees in various departments".
<b>Resources</b>	"Searching for competent partners with experience in the field". In-house competencies for working with startups, implementing and developing innovations have been created".



The realisation of the above factors contributes to the formation of an innovatively successful company, where both employees and top management are interested in qualitative changes. The coordinated work of the company's structural units, as well as their interaction with the external environment, generates highly efficient innovative project.

Next, we will explore the most significant cases of corporations in the field of innovation, created both by the company's internal innovation teams and jointly with external organisations and startups, which have been identified based on the results of the first GenerationS Innovation Award 2023.



# #05

## BEST PRACTICES OF INNOVATIVE ACTIVITIES OF COMPANIES

5.1. Cases of internal innovations / page 46

5.2. Cases of innovative solutions developed through the partnership of companies / page 49





# #5.1

## CASES OF INTERNAL INNOVATIONS

### PJSC ROSSETI – CENTER

The problems associated with the transmission of electricity meter readings included errors in the manual entry of a large number of digits, complex logistics in transporting production personnel to take control readings, high non-production costs, and suboptimal use of personnel time.

The problem was solved by PAUK software complex, which is designed to automate the collection of readings and monitor the status of metering devices. The serial number, model, seals and readings are automatically recognised from the image of the meter using artificial intelligence methods.

Implementation of the PAUK SC project made it possible to reduce time expenditures by 4,500 man-hours and resources spend in the amount of 1.6 million rubles per month in one branch for collection and analysis of electricity consumption data, as well as to improve the accuracy and reliability of the results obtained. The project is an important step towards automating the energy industry and improving the economic efficiency of the company's business processes.



**Vitaly Akulichev**

Deputy Director General for Digital Transformation of PJSC Rosseti Center, the Managing Organisation of PJSC Rosseti Center and Volga Region



### SBERBANK PJSC

In Russia, 90 million people buy medicines worth 1.77 trillion rubles annually (according to Alpharm). This expense tends to increase in the event of a health insurance event. The only way to reclaim some of the money spent on medicines is to apply for a tax deduction. To apply for it, individuals need to collect receipts, licences from medical institutions, certificates, etc., and wait for a refund for several months. However, the tax deduction cannot exceed 15%.

An employee of Sberbank created a service that allows pharmacy customers to receive insurance compensation of up to 90% of the cost of medicines within 1 hour. This project participated in the internal accelerator SberUP. Following the acceleration, the solution was tested in Sbe-Insurance and then integrated into the product line under the name Pharm-Insurance. The product won the FinAwards award in the category "Insurance Product of the Year". Today, it is used by more than 150,000 clients of various insurance companies throughout Russia.



**Natalya Magidei**

Managing Director for Startups, Sberbank PJSC



## MTS-DIGITAL LLC

As part of Oracle import substitution, the in-house team created its own solution RMS (Resource Management System) based on the 1C box solution for the company's processes in 2022.

### Functionality

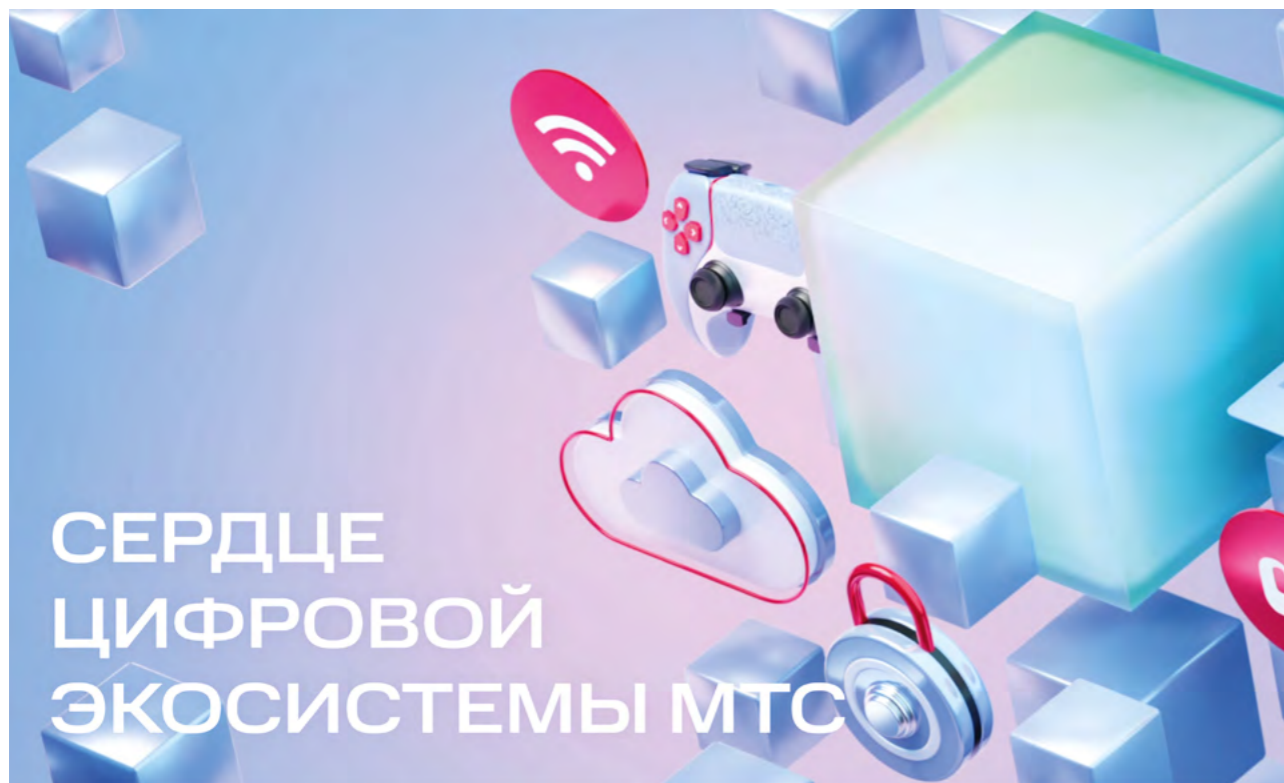
- Business units do not work within the system; all approvals are done by mail, and all other processes are managed by service functions.
- Electronic Document Management (EDM) for interaction with counterparties and employees.
- Integrations with internal systems of the company for the automation and acceleration of processes.
- Replication to other subsidiaries of the MTS Group (4 subsidiaries are already integrated, with 6 more in progress).

The product is used by 100+ unique users daily, and the duration of many key processes has been reduced by two or more times.



**Evgeny Bukhtienko**

Head of the Project Management and Automation Center of MTS Digital LLC



# #5.2

## CASES OF INNOVATIVE SOLUTIONS DEVELOPED THROUGH THE PARTNERSHIP OF COMPANIES

### ALFA-BANK JSC

Business owners rarely use customer delivery because they are not willing to adjust their schedules around the courier.

We were challenged to find a new delivery method so that customers could choose a convenient time and place to pick up their business cards.

As a result, Alfa-Bank became the first bank in Russia to offer its customers the opportunity to pick up their bank cards at postamats in 1,332 locations across Russia – a total of 5,000 pick-up points. The average time to issue a business card at a postamat was reduced by 3.2 times compared to delivery to the Bank's branch, and the cost of delivering one card was reduced by 4 times.



**Dmitry Kazankov**

Head of Corporate Cards and Cash Products Development Department, Alfa-Bank JSC





## PJSC MAGNITOGORSK IRON & STEEL WORKS

The Automated System of Current Calendar Production Planning (AS CCPP) is an integrated set of solutions designed to manage production planning at a full-cycle metallurgical enterprise. This system encompasses all of MISW's production units, from steelmaking to the shipment of finished products, spanning across 17 structural divisions, over 200 machines, and approximately 600 different production routes.

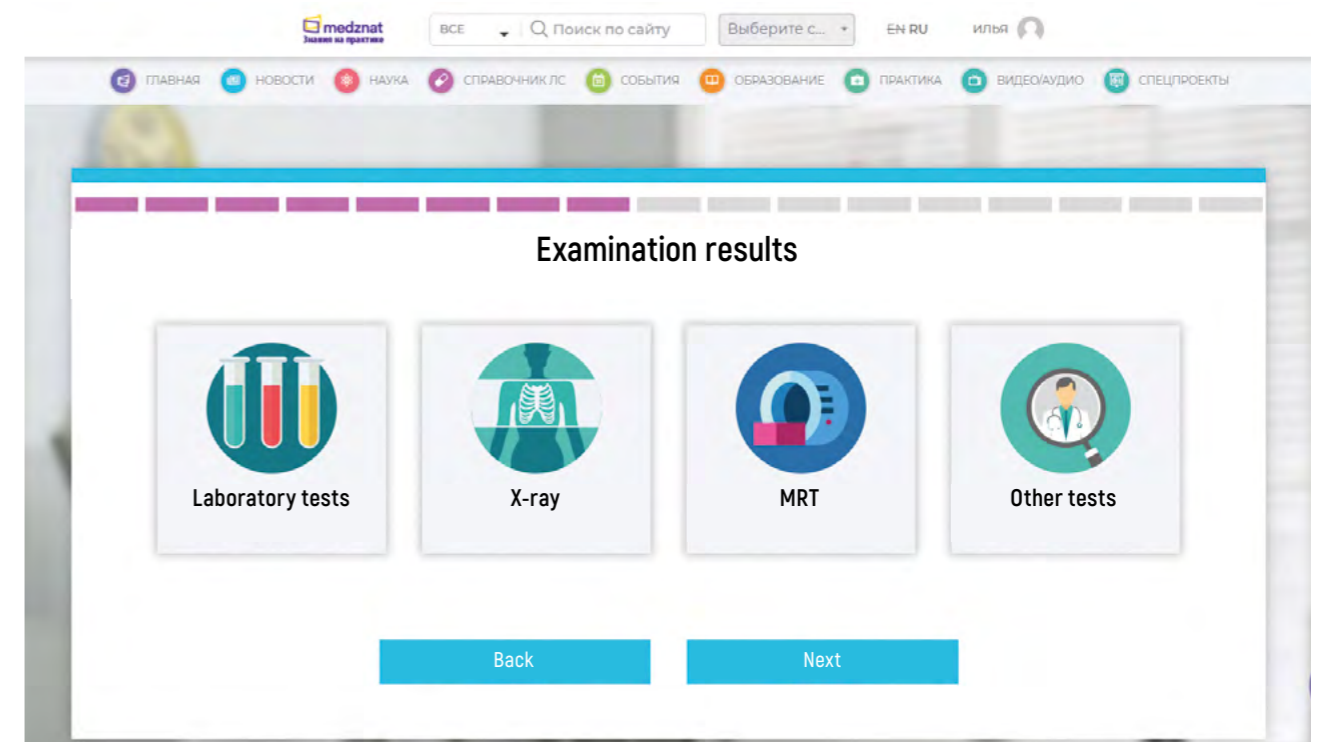
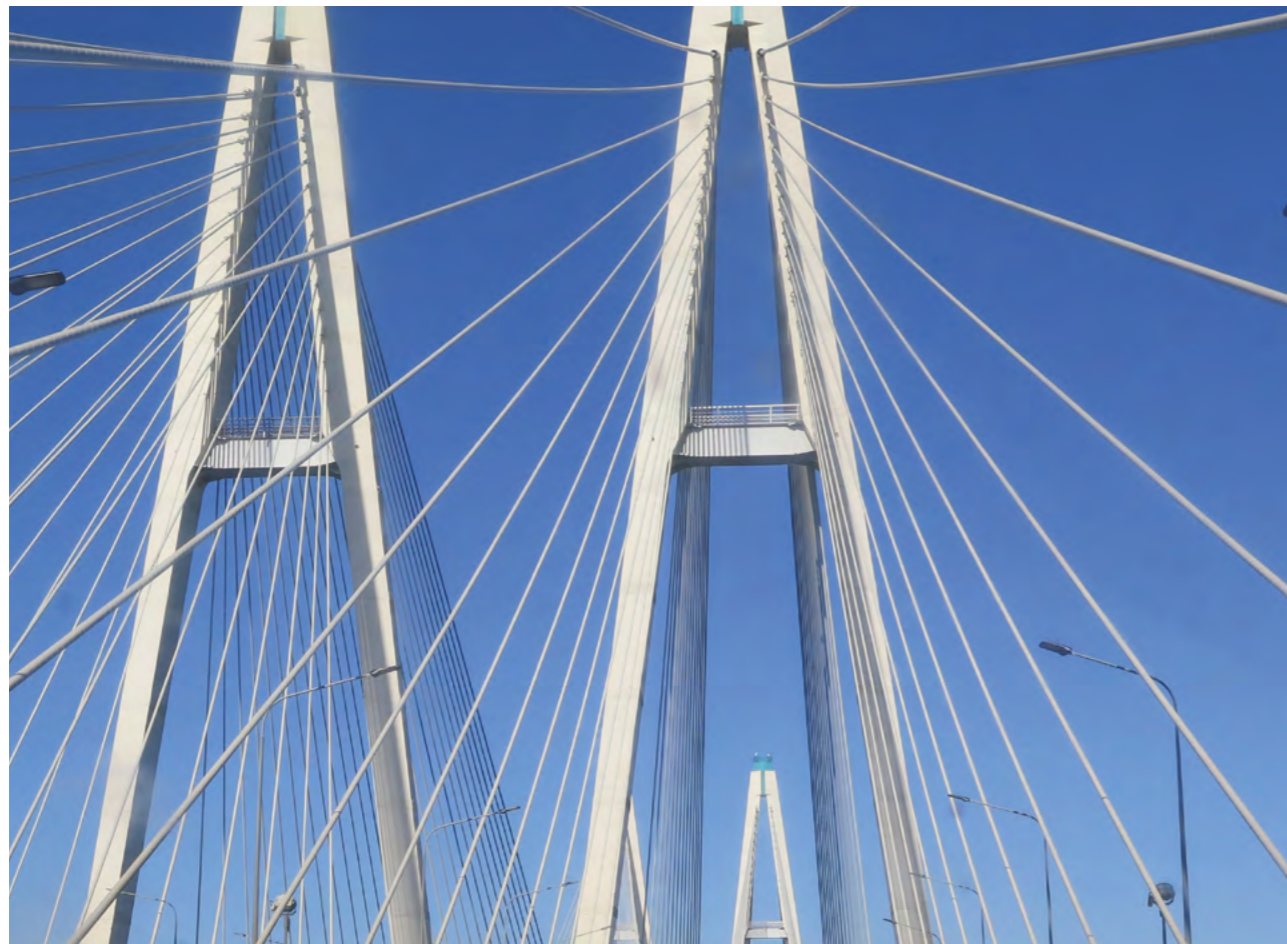
The AS CCPP system efficiently processes, allocates, and converts up to 15,000 commercial order items per month into production orders, thereby ensuring the fulfilment of the annual production programme.

Notably, MISW holds the distinction of being the first major steelmaker to adopt a production planning system developed by a Russian developer.



**Pavel Shilyaev**

CEO  
Magnitogorsk Iron and Steel  
Works PJSC



## DR. REDDY'S LABORATORIES LLC

The Virtual Patient initiative, developed in collaboration with a technology partner and seamlessly integrated into the company's thematic portal, serves as an interactive digital training tool for doctors. It utilises real-life examples of complex clinical cases to enhance medical training.

The materials are meticulously crafted in collaboration with opinion leaders from the professional community. They feature non-trivial cases, enabling practitioners to practice diagnosing and treating various conditions effectively. Upon testing the tool, thousands of healthcare professionals have demonstrated significant interest in this innovative learning format. They have lauded the quality and relevance of the content prepared.



**Ilya Zaitsev**

Head of Digital Platforms and  
Innovations Development,  
Dr. Reddy's Laboratories LLC



# #06

## INNOVATIONS IN THE CONTEXT OF NEW GEOPOLITICAL CHALLENGES

6.1. Restrictions faced by Russian companies / page 54

6.2. The most significant innovations in the field of import substitution / page 56





# #6.1

## RESTRICTIONS FACED BY RUSSIAN COMPANIES

The current geopolitical environment in the world affects various aspects of companies' operations. Some companies took advantage of the 'window of opportunities' and developed their own solutions (including 'from scratch'), which are not only a replacement for foreign analogs, but also significantly surpass them in one or more parameters.

During the period of anti-Russian sanctions, 56% of companies experienced an increase in the implementation of innovative solutions. Conversely, in 33% of companies, the number of innovative solutions remained static, while only 11% witnessed a decrease.

This finding aligns with several studies indicating that firms with a strong entrepreneurial attitude, viewing crises as opportunities, tend to introduce more new ideas and projects during such periods<sup>40</sup>.

### Impact of new geopolitical challenges on innovation activity of companies, in %

**56 %**

The number of innovative solutions implemented increased

**33 %**

The number of innovative solutions implemented remained unchanged

**11 %**

The number of innovative solutions implemented decreased

Source: GenerationS data

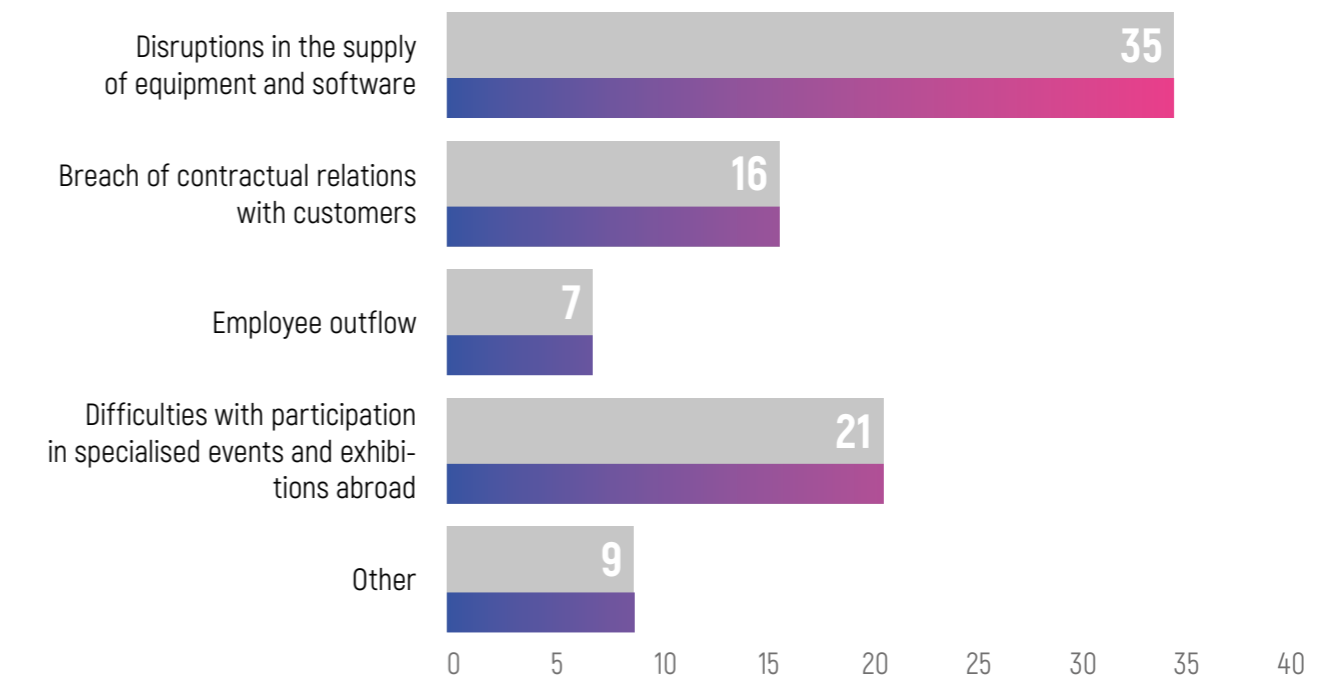
<sup>40</sup> Bao, Y., B. Olson, and W. Yuan. 2011 "Defensive and Expansion Responses to Environmental Shocks in China: Interpreting the 2008 Economic Crisis." Thunderbird International Business Review 53(2): 225-245

Sanctions had the greatest impact on disruptions in the supply of equipment, software, and components – 35 companies provided this response. For 21 companies, the challenge lay in the inability to participate in specialised events and exhibitions abroad. Additionally, 16 interviewed companies experienced breaches of contractual relations, while another

7 companies had to adjust their hiring strategy due to an outflow of specialists.

The companies mentioned difficulties related to establishing and finding logistics channels, limited sales markets, as well as problems with financing from potential customers.

### DIFFICULTIES FACED BY RUSSIAN COMPANIES DUE TO THE SANCTIONS



Source: GenerationS data

Companies are endeavouring to overcome these challenges by seeking additional sales and financing channels, including through collaboration with firms from friendly nations, refocusing on the domestic market, and pursuing import substitution.

Highlighted below are the most successful innovative projects that have achieved import substitution, identified based on the evaluations during the Generations Innovation Award 2023.

The quest for import substitution solutions commenced in response to events that jeopardised the stable functioning of companies' business processes. Product development began with an analysis of the current situation, drawing upon global benchmarks and leveraging their own successful experiences.

# #6.2

## THE MOST SIGNIFICANT INNOVATIONS IN THE FIELD OF IMPORT SUBSTITUTION

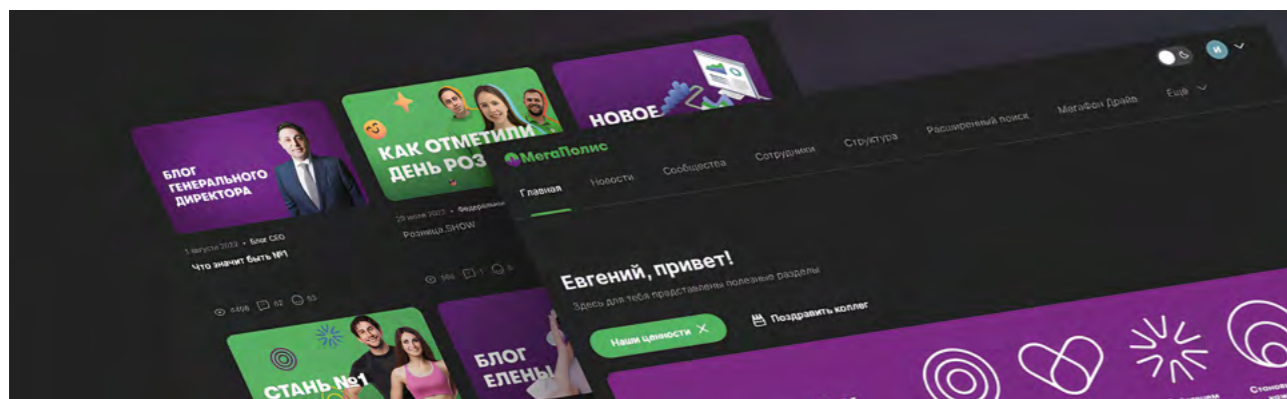
### NEXIGN JSC

MegaFon faced the challenge of ensuring the continued development of the corporate portal, following the departure of the SAP vendor from the Russian market. In 2022, the operator successfully migrated its key HR processes from SuccessFactors SAP to the Neon platform. Thanks to a micro-service architecture and modular approach, we were able to swiftly replace the foreign system without disrupting business processes or causing difficulties for employees. Additionally, we successfully implemented new functionality.

To expedite project implementation, our teams worked concurrently across multiple areas: initiating the project, developing additional functionality, and customising the platform. Consequently, a new intranet platform called MegaPolis was launched on the Neon platform, bringing together 30,000 users from several companies affiliated with MegaFon PJSC.



**Mikhail Matyushin**  
Technical Director of Nexign JSC



### PSK PHARMA LLC

Starting from the summer of 2022, supplies of Salmeterol+Fluticasone aerosol to the Russian market were discontinued<sup>41</sup>, with this product being out of stock in various regions even earlier. Meanwhile, 6.9% of the country's adult population suffers from bronchial asthma, and the same disease affects about 10% of children and adolescents. Hence, the product is included in the List of Vital and Essential Drugs (VEDs). Considering the high social significance of the product and having a medicine with the specified INN from the List of VEDs in its portfolio, PSK Pharma decided to increase the volume of production of the aerosol. They accelerated the development and subsequent registration of a new dosage of the medicine – 25+50 mcg/dose, enabling the inhaler's use in the treatment of children aged 4 years and older. Additionally, they solved the issue of container size, reducing the cylinder volume to 14 ml<sup>42</sup>.

The second product, Budesonide+Formoterol<sup>43</sup>, is also included in the List of VEDs. Only 2 companies can offer the powdered inhalation capsules as a kit, with PSK Pharma being the sole Russian manufacturer since 2019<sup>44</sup>. Therefore, the company faced the challenge of increasing production volume within a short period. According to Alparm's analytical report<sup>45</sup>, the PSK Pharma team successfully managed this challenge, with the Respiforb® brand becoming the growth driver of anti-asthma and COPD drugs in the state segment in 2022. (Note: The sales of both Respiforb® and Respiforb® Combi products were considered in the research methodology.)



**Evgenia Shapiro**  
Director General of PSK Pharma LLC



41 <https://karelinform.ru/news/2022-04-25/importnye-i-otechestvennye-est-li-defitsit-lekarstv-v-karelii-2322611>

42 <https://pharmmedprom.ru/news/psk-farma-vivodit-na-rinok-preparat-dlya-lecheniya-bronhialnoi-astmi-u-detei-ot-4-h-let/>

43 [https://grls.rosminzdrav.ru/Grls\\_View\\_v2.aspx?routingGuid=f9d3c3ec-34a3-4aea-ba98-e32b75e3e6f9](https://grls.rosminzdrav.ru/Grls_View_v2.aspx?routingGuid=f9d3c3ec-34a3-4aea-ba98-e32b75e3e6f9)

44 <https://grls.rosminzdrav.ru/Grls.aspx?RegNumber=&MnnR=%d0%91%d1%83%d0%b4%d0%b5%d1%81%d0%be%d0%bd%d0%b8%d0%b4%2b%d0%a4%d0%be%d1%80%d0%bc%d0%be%d1%82%d0%b5%d1%80%d0%be%d0%bb+%5b%d0%bd%d0%b0%d0%b1%d0%be%d1%80%5d&f=&TradeNmR=&OwnerName=&MnfOrg=&MnfOrgCountry=&isfs=0&regtype=1%2c6&pageSize=10&order=Registered&orderType=desc&pageNum=1>

45 <https://alpharm.ru/ru/news/top-10-grupp-ephmra-2-uroven-po-absolyutnomu-prirostu-postavok-ls-v-gosudarstvennom-segmente>



## AEROFLOT PJSC

Aeroflot PJSC is the national air carrier and a leading entity in civil aviation in Russia. In the backdrop of a challenging geopolitical scenario and unprecedented sanctions imposed on the Russian aviation industry in 2022, Aeroflot undertook a substantial project aimed at achieving the company's main objectives of countering sanctions, substituting imports, and establishing digital sovereignty:

Ensuring aviation mobility of the population and achieving sovereignty in the air transport sector.

- Preserving the aircraft fleet.
- Organising the process of aircraft maintenance and repair in the Russian Federation.
- Substituting critical software imports.

**The sanction restrictions imposed by Western countries resulted in a reduction in the international destination network, necessitating a shift of flights to domestic destinations and corresponding re-configuration of infrastructure and operational processes. Addressing vital product provision issues for preserving and safely operating the aircraft fleet, along with critical software import substitution, became imperative within a limited timeframe.**

Although unprecedented, a comprehensive set of measures was promptly executed to tackle emerging challenges, with the primary focus on implementing a large-scale project to counter sanctions, substitute imports, and build digital sovereignty.

In record time, our company engaged domestic suppliers and expanded ties with counterparties from friendly countries. This ensured the uninterrupted operation of the company under unprecedented sanction pressure. The fleet of Russia's largest air carrier was preserved, with a full range of aircraft maintenance and repair services organised at the premises of Aeroflot Technics, a subsidiary of Aeroflot. Significant progress was made in the area of import substitution of air transportation software, and a centre for developing design solutions to maintain a high level of flight safety was established, among other achievements.



**Mikhail Fedosov**

Deputy Director General for Corporate Governance and Procurement, Aeroflot PJSC







**#07**

**SCALING INNOVATIONS  
FOR THE PURPOSES OF  
CORPORATE DEVELOPMENT**

7.1. Venture capital funds as a tool for investing in innovation / page 62

7.2. GenerationS' activities to develop innovations in Russia / page 64



# #7.1

## VENTURE CAPITAL FUNDS AS A TOOL FOR INVESTING IN INNOVATION

Venture investment mechanisms are also used to support the development of innovation. Venture investment is an important tool for the development of innovation and it allows to identify and support promising projects and startups that can lead to new technologies and increase the competitiveness of a country or company. Venture investments support innovative ideas, projects and startups that have the potential to be implemented and scaled.

Currently, there is a division into public, private, and corporate venture capital funds. Public venture capital funds are created to support innovation at the level of the state and are financed from the budget. They often collaborate with private investors and provide startups with access to experts and infrastructure. Self-invested private investment funds have the objective of making a profit from the projects invested. Corporate venture capital funds are established by companies to support innovation within their industry or to diversify their business lines. They can fund both internal projects and external startups that have the potential to collaborate with the company.

According to the Unicorn Base<sup>46</sup> portal, there are currently 142 venture capital funds operating in Russia.

According to Dsight<sup>47</sup>, in 2022, the volume of investments in Russia amounted to USD 418 million: more than 130 transactions were made. Due to the current geopolitical and economic situation, there was a decrease in the number of transactions and investment volume, with startups at early stages of development being the least affected.

Nevertheless, in the face of geopolitical challenges, venture capital funds continue to operate. Softline Venture Partners<sup>48</sup> reported that 29% of the total number of venture capital funds in 2022 are categorised as highly active. This group included NTI Venture Fund, Zerno Ventures, TilTech Capital, MTS AI, Samara Region Venture Fund, Voskhod Venture Fund, VEB Ventures, etc

<sup>46</sup> [Venture capital fund database](#)

<sup>47</sup> [Venture Eurasia. 2022 results](#)

<sup>48</sup> [Softline Venture Partners assessed the activity of the Russian venture capital market](#)

NTI Venture Fund managed by Kama Flow searches for technologies in Russia's priority scientific and technological areas, which comprise DeepTech projects in the sphere of additive technologies and new materials, software, digital medicine, sensorics and robotics.

The volume of the fund is more than 3 billion rubles, the average check is equal to 150 million rubles.

In 2022, the fund invested 325 million rubles in Medical Visual Systems software and hardware complex for telemedicine. In the same year, investment in the amount of 100 million rubles was received by Stereotech, a developer of 5D-printers<sup>49</sup>.



Based on the 2022 results, MTS Corporate Venture Fund remained one of the few players that continued its high investment activity in the Russian market. We are not going to stop: this year, we announced plans to invest up to 1 billion rubles in startups – and we have already closed 2 deals.

MTS Corporate Venture Fund has been in existence for 3 years and invests in A+/B stage startups that have strategic value for the MTS ecosystem. The key parameters in selecting projects include prospects for rapid growth and synergy with the company's current and new business areas. The geography of the fund's investments covers startups from Russia and CIS countries. The investment amount ranges from 0.5 to 5 million US dollars.

In total, we invested in 3 startups last year, with total investments amounting to half a billion rubles. The new portfolio companies complemented and strengthened the ecosystem verticals of Big Data, Entertainment, as well as a new product – MTS Junior subscription, which combines a variety of services for children.



**Dmitry Kurin**

Director for Innovations and Investments of MTS PJSC, CEO of MTS StartUp Hub

<sup>49</sup> [National Technology Initiative \(NTI\) Venture Fund](#)

# #7.2

## GENERATIONS' ACTIVITIES TO DEVELOP INNOVATIONS IN RUSSIA

GenerationS is the largest platform in Russia and the CIS for the development and implementation of innovations in large corporations and holdings. It is among the top 5 best state accelerators in the world according to UBI Global, as well as among the top 100 best projects in Russia according to the project 'Strong Ideas for New Times'. The successful track record is confirmed by the implementation of more than 700 pilot projects and a total investment in alumni of 47 billion rubles.

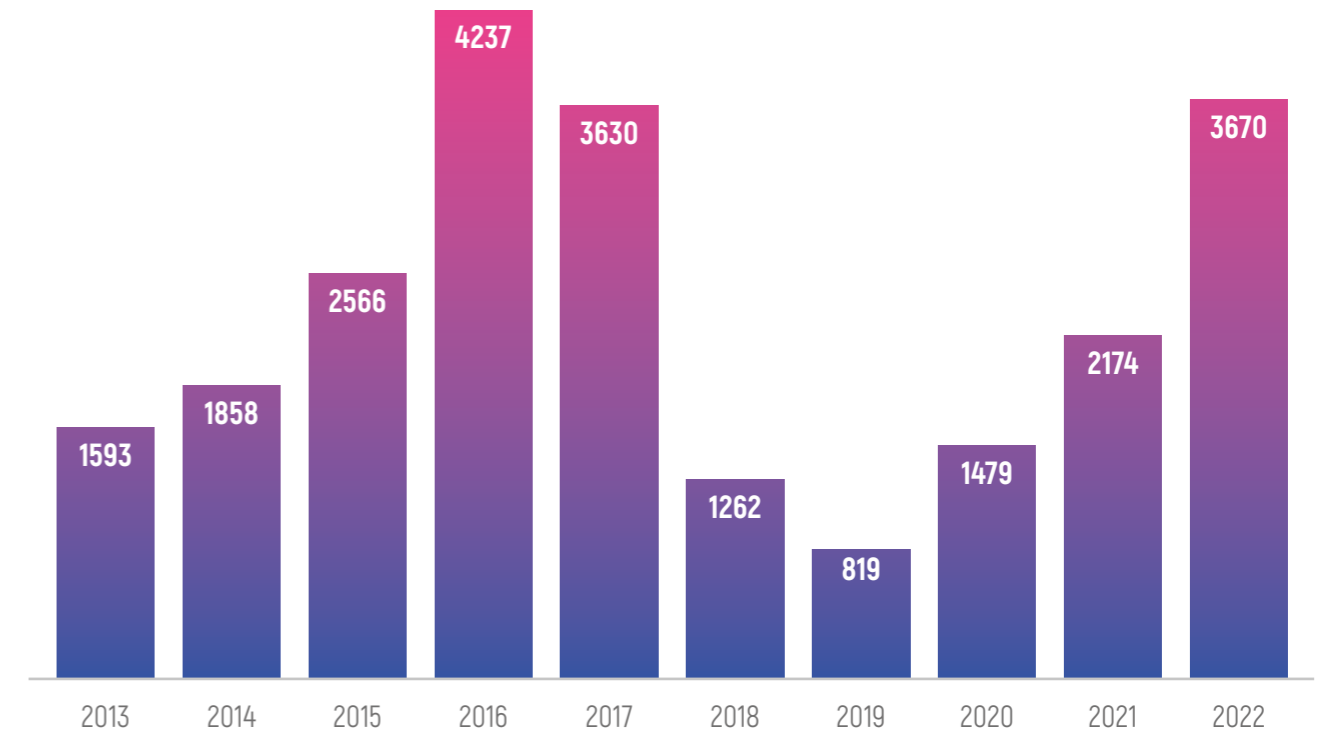
The main objective of the platform is to create an infrastructure through the unification of science, the state, and business, which will contribute to achieving a leading position in future technologies.

### ACCELERATOR PROGRAMMES

GenerationS develops corporate innovations at different levels of innovation maturity of companies to stimulate technological innovation in sectors of the economy and create institutional conditions for deep modernisation of the technological base through the development of science, technology, and production areas that can ensure the emergence of fundamentally new markets and technological leadership in them.

In 2013, GenerationS became the first federal accelerator to train teams in technological entrepreneurship, financial management skills, and team structuring.

Number of participants in GenerationS accelerator programmes



Source: GenerationS data

Over 80 programmes in IT, Fintech, Oil&Gas, Smart City, Power&Energy, Robotics, etc. have been held over the 10 years of its existence. The number of accelerator participants has exceeded 23,000. Apart from the training, the teams had the opportunity to present their projects to potential investors and businesses. In 2023 alone, a pool of more than 800 promising projects from all over Russia in priority areas of technology and engineering in the Russian Federation was created for JSCo Russian Railways, Promsvyazbank PJSC, Alfa-Bank JSC, Irkutsk Oil Company LLC, FGBU Foundation for Assistance to Small Innovative Enterprises in Science and Technology (FA), etc.

In 2023, a strategic project for the transportation industry "Russian Railways Transport Accelerator" was launched with the support of the Ministry of Transport of the Russian Federation to promote the development and introduction of cross-industry innovations within the framework of the Transport Strategy of the Russian Federation until 2030.

### INTERACTION WITH UNIVERSITIES AND CORPORATE TRAINING

GenerationS collaborates with universities to support their strategic, scientific and technological development in order to solve business challenges through technology. The platform has a pool of more than 30 universities that actively participate in corporate accelerators and other joint strategic projects. Under the federal programmes "Priority 2030" and "Advanced Engineering Schools", the following projects have been launched jointly with universities: corporate-based prototyping and testing centre for new technologies, training schools for digital competencies, innovation management, mentoring and coaching.

GenerationS is an accredited provider of entrepreneurial competency trainings for students and a partner of the university accelerators under the Federal Project entitled "University Technological Entrepreneurship Platform". To date, more than



The best corporate accelerator in Europe according to Corporate Startup Summit 2018



Top 100 projects in Russia of the federal project "Strong Ideas for New Times"



Top 5 state accelerators in the world according to UBI Global



Winner in the nomination "Best Accelerator of the Year" at Jordan StartUp Expo-2023



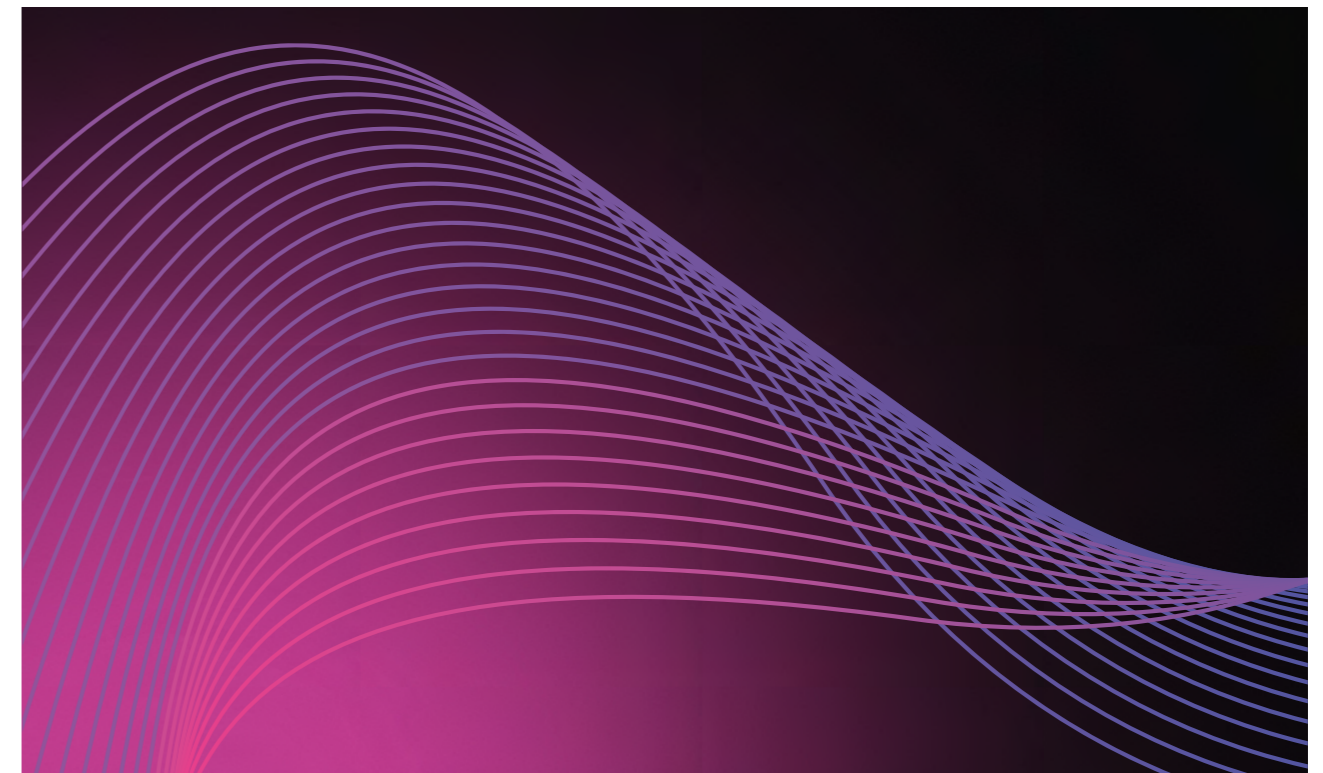
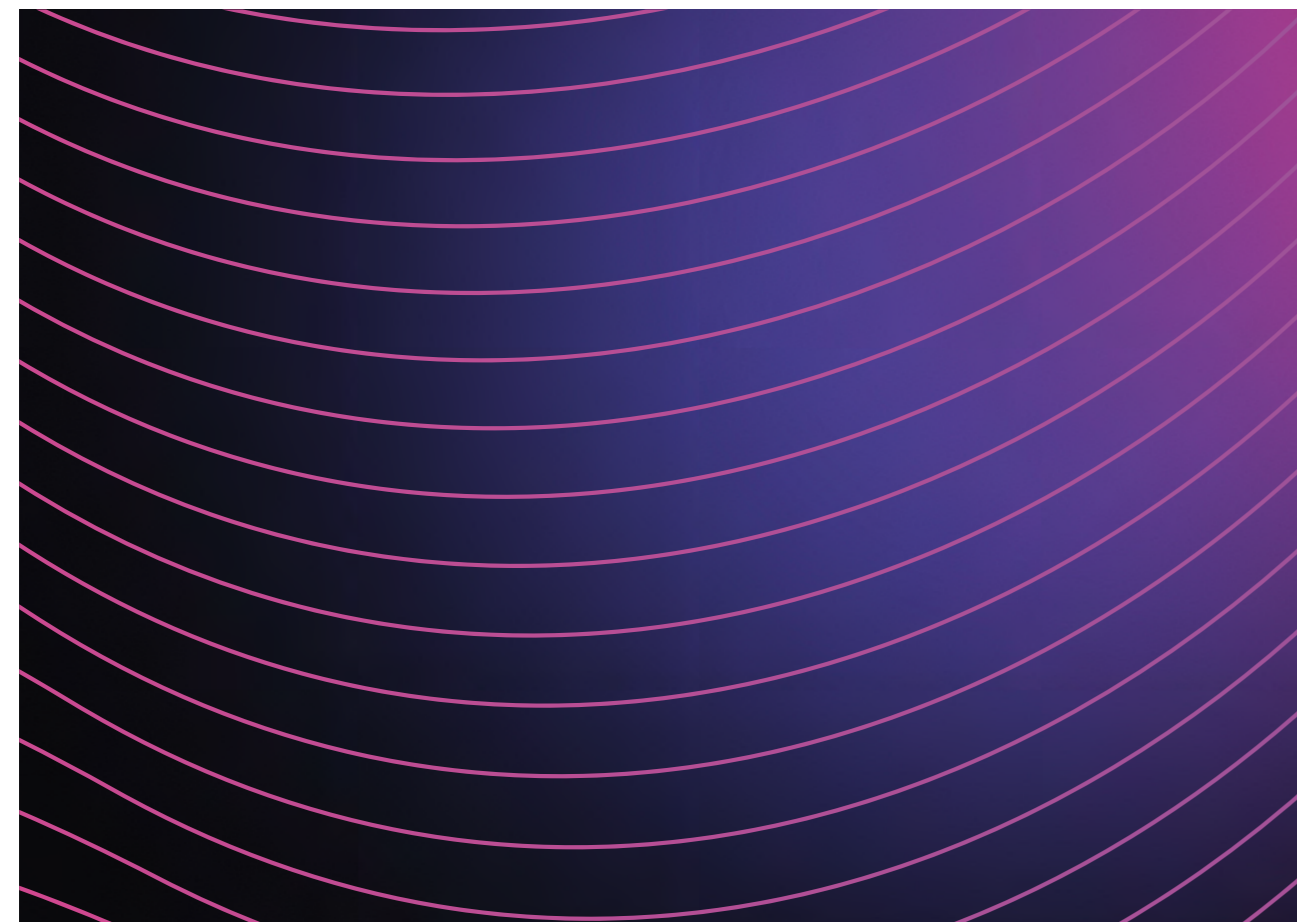
80 training sessions on technology entrepreneurship have been conducted for nearly 5,000 students in the Northwestern, Central and Southern Federal Districts. Methodological and consulting support was provided to university accelerators involving more than 1,400 students who developed more than 240 startup projects. Such universities as ITMO, PskovSU, Yaroslav-the-Wise NovSU, KSU, SFU, VolsU, Adygeya State University, SevSU, MichGAU, SGU Pitirim Sorokin, Lomonosov NarFU, CSU, MIPT, Bauman MSTU, etc. became platforms for holding events for students.

In addition to educational events for students, the GenerationS team has developed a line of educational products for corporate employees to improve the level of innovation culture and the effectiveness of programmes for working with startups and internal developments. One of the key products is the "Immersion in Corporate Innovation" online course, which has been attended by more than 100 innovation managers and executives who have gained new competencies in the innovative development of the company.

## ANALYTICAL CENTER

The Platform has organised the work of the Analytical Center, whose task is to identify technological trends and products, as well as cases of applying innovations that can improve the efficiency of companies and make them more competitive, in such areas as Oil & Gas, Mining & Metals, Energy & Cleantech, Food & Agrotech, Transport & Infrastructure, Fintech, etc.

Starting from 2022, the Analytical Center has prepared more than 30 analytical studies in the areas of partners' activities. Studies related to the analysis of alternative ways of processing substances and production waste, technologies for determining the composition of raw materials and options for their further use, solutions for import substitution of equipment and components, as well as ways to reduce the carbon footprint have been carried out. Besides, projects in the field of artificial intelligence, personalisation of user interaction, automation of business processes of Russian and foreign companies, etc. are analysed on a regular basis.



During the period of the Center's operation, in the context of an unstable geopolitical situation, 6 anti-crisis guides for the Russian innovation and startup community have been published, which contain databases of experts, corporations, development programmes to support Russian startups, recommendations on logistics and settlements with international partners, advice on crisis management and motivation of corporate employees in the process of innovation.

The Analytical Centre's toolkit is based on the use of the Case study methods, JTBD, CJM, expert interviews, quantitative data analysis, etc. In some cases, the author's methodology of determining the relevance of cases and areas of development based on the clients' request is applied.

## EXPORT PROGRAMMES

GenerationS has been conducting international programmes in the MENA market for several years with the support of the Moscow City Government to increase the export potential of Moscow startups through local partners in the Middle East, including the UAE and Saudi Arabia.

As of today, more than 50 companies have already received support from the city and have successfully launched their product in the MENA region. In addition, after implementing one of the joint programmes, Moscow companies were ranked among the world's top 100 best technologies.

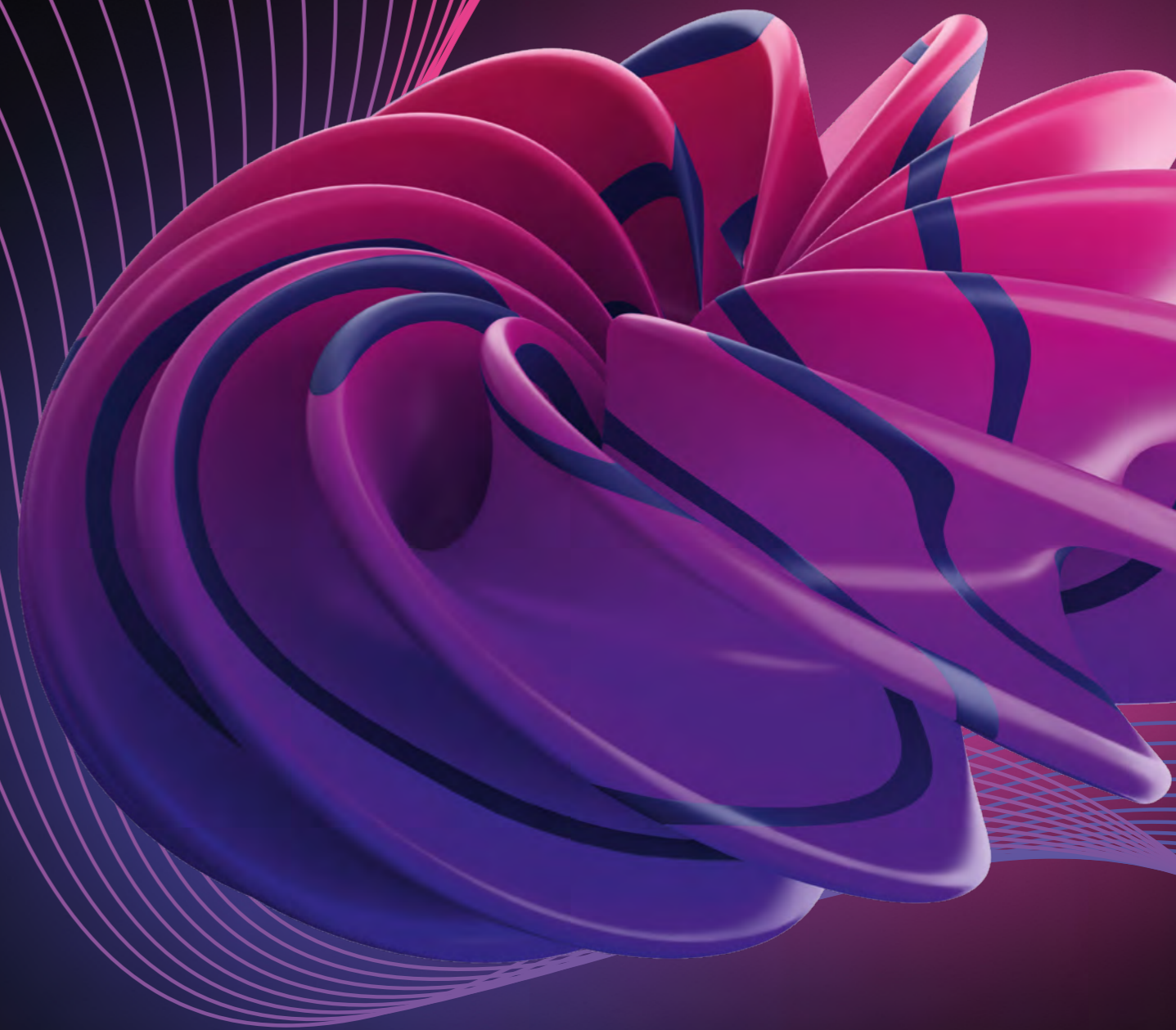
In 2023, the largest export accelerator in MENA markets was conducted for the Moscow City Government with a local partner from Saudi Arabia. More than 150 applications from Moscow-based manufacturing companies were submitted for participation in the programme, and the amount of export contracts after the programme exceeded \$10 million. Export programmes were also implemented for PJSC Gazprom Neft in the UAE, India and China markets, involving more than 30 target foreign partners.

GenerationS keeps receiving requests for domestic solutions from our Middle Eastern partners in various sectors, and the most demanded among them are innovation projects in the fields of transportation, agritech and "smart city" to achieve the digital development objectives of the MENA region.



**#08**

**PROSPECTS FOR  
THE DEVELOPMENT  
OF INNOVATION ACTIVITY  
OF COMPANIES IN RUSSIA**



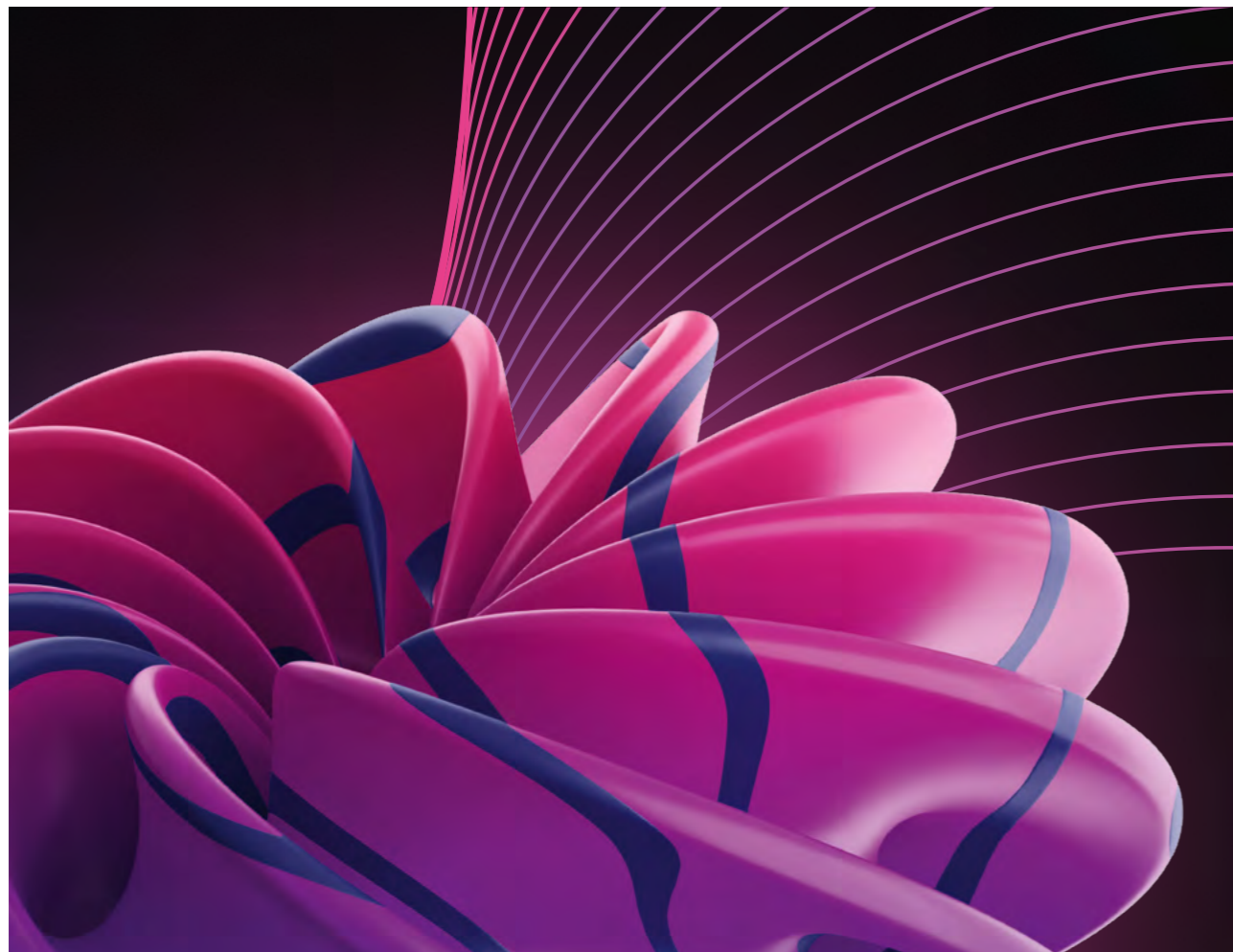


# #08



## PROSPECTS FOR THE DEVELOPMENT OF INNOVATION ACTIVITY OF COMPANIES IN RUSSIA

The changed geopolitical conditions require the creation and implementation of a new technological policy for our country, aimed at achieving technological sovereignty secured by our own intellectual property, personnel, and means of production, as well as life cycle control.



Now there are opportunities for the development of the domestic market, search for new partners and logistics routes; in particular, due to the rise in prices or inability to use foreign technologies and components, the need for domestic developments has multiplied. At the same time, business contacts with a number of foreign countries were interrupted, channels for supplying goods were reduced or changed, access to Russian assets abroad was restricted, and difficulties arose in making international payments.

Thus, the external restrictions faced by Russia require the introduction of new approaches to the implementation of technological policy and the development of innovation activity.

In May 2023, following the instruction of the President of the Russian Federation, the Government of the Russian Federation approved the Concept of Technological Development of Russia until 2030<sup>50</sup> (hereinafter, the Concept), which defines the challenges affecting the innovative development of Russia, the main stages of technological development, principles, goals and indicators of technological development, as well as mechanisms for achieving the goals enshrined in the Concept.

**The key threats to Russia's technological development are as follows:**

- Insufficient ability of the economy to adapt to global trends
- Lagging behind the most developed countries in the rate of innovation-oriented economic growth
- Outflow of talents and highly qualified personnel abroad
- Disruption of production systems under the impact of sanction restrictions in the field of technology

**The Concept identifies two stages of technological development of the Russian economy:**

1. Isintegration and survival of the scientific and technological system (1990s).
2. Embedding in the global scientific environment and global production and technological chains (from the mid-2000s to the present day).

**Now we can talk about the beginning of the third stage of technological development of the Russian economy, which is characterised by the achievement of technological sovereignty, which implies that the country has critical and end-to-end technologies of domestic developments (under national control); in this regard, the objectives of the Concept are:**

1. Ensuring national control over the reproduction of critical and end-to-end technologies
2. Transition to innovation-oriented economic growth, strengthening the role of technology as a factor of economic and social development
3. Technological support of sustainable operation and development of production systems

One of the new subjects of technological development should be small tech companies (STCs) focused both on integration into the production and technological chains of big business and on the independent launching of serial production.

<sup>50</sup> Order of the Government of the Russian Federation No. 1315-r "On Approval of the Concept of Technological Development for the Period until 2030" (dd. 20 May 2023).

Small tech businesses are more flexible than large businesses and may become a major driver in achieving technological sovereignty. STCs, as a form of capitalisation of knowledge and ideas, are the core of Russia's technological development, as they help to generate and test the most breakthrough innovations that can have a positive impact on the development of technology in our country

**On 3 November 2023, the Federal Law No. 478-FZ 'On the Development of Tech Companies in the Russian Federation' (dated 4 August 2023) came into force<sup>51</sup> (the Law)**

The main purpose of the Law is to create special legal treatment for STCs, not just separation, but the formation of a new 'registry' model of providing state support.

The state pays a lot of attention to supporting tech companies. Currently, existing measures of financial and non-financial nature are being improved and new ones are being developed, including in the form of granting benefits for payment of taxes, fees, and insurance contributions, providing information, consulting and financial support, supporting exports, creating demand for innovative and/or high-tech products.

In addition, it is planned to create preferential treatment for STCs, including special tax and administrative regulation, and to provide support measures from innovation development institutions, such as the Innovation Promotion Foundation, the Skolkovo Foundation, the Russian Venture Company, etc

To obtain an STC status, the revenue of an organisation for the previous calendar year must be no more than 4 billion rubles, and the type of economic activity must comply with the list approved by the Decree of the Government of the Russian Federation of 2 November 2023, No. 1847.

Companies granted a STC status will be entered into a special register. The register will become a kind of "showcase of startups", which, on the one hand, will unite investors and startups, and, on the other hand,

will allow targeted support measures to be provided to small tech companies.

Among other things, the resource will make it possible to monitor STC's activity across a range of indicators, analyse data on revenue, raised investments, and needs for support measures.

The public and commercial sectors stimulate the inflow of capital into the activities of tech companies at different stages of development, as the establishment of technological sovereignty requires laying the foundation not only for the creation of innovative projects but also for their commercialisation and scaling, including through investment activities.

To support the development of technological and innovative entrepreneurship, it is also planned to develop special investment financing mechanisms, including financial support tools for the refinement of products and technologies to meet the requirements of major customers, and credit products for the commercialisation of developments.<sup>52</sup>

**Speaking about the venture capital market, it should be noted that 82 transactions were made in the first 9 months of 2023 for a total amount of \$41.6 million. In Moscow in Q3 2023, the market grew for the first time since February 2022 – the growth relative to Q2 2023 amounted to 92% by number and 7% by volume of transactions.<sup>53</sup>**

Despite the relatively low current volumes of the venture capital market, Russia has the prerequisites for successful development of this segment, especially given the highly developed human capital: a high level of education among the population, a large number of qualified specialists, availability of "success stories" of Russian entrepreneurs and investors abroad, and development of the B2C segment.



One of the mechanisms for stimulating venture capital investment could involve the development of venture capital funds and encouraging investment through them, including expanding the pool of potential investors in these funds. Presently, pension funds, endowment funds, and individuals are unable to invest in venture capital funds through Investment Partnership Agreements ("IPAs"), thus limiting their access to the venture capital market.

The IPA format is commonly used to structure venture capital funds in Russia, with 43 such funds established in the country as of the end of 2022.

This format is also utilised in the establishment of corporate venture capital funds, where corporations set up their own funds to discover promising startups in their sectors of interest.

Investing through funds enables corporations to avoid direct involvement in the day-to-day operations of startups during the early stages of development, thereby mitigating the risk associated with funding startups to individual fund investments. As startups progress, corporations, as active participants in the M&A market, often emerge as key buyers, providing exit opportunities for founders and investors, including funds.

In supporting tech companies and facilitating their journey to the IPO stage, the Ministry of Economic Development of Russia is implementing the Federal Project "Takeoff – from Startup to IPO" (hereinafter referred to as the Project).

<sup>51</sup> Federal Law No. 478-FZ "On the Development of Tech Companies in the Russian Federation" (dd. 4 August 2023).

<sup>52</sup> Order of the Government of the Russian Federation No. 1315-r "On Approval of the Concept of Technological Development for the Period until 2030" (dd. 20 May 2023).

<sup>53</sup> Venture capital investments.





The key objective of the Project is to create new technology leaders, i.e. mature companies that are ready to go public on the stock exchange (IPO). The Project encompasses various tools for the development of innovative projects and tech companies:

- Creating infrastructure to support startups and innovative projects, including incubators, accelerators, and technology parks.
- Financial support measures for projects and companies, including preferential loans and grants.
- Training and accelerated development of entrepreneurs in business and team management, finance, and marketing.
- Establishing investment funds and raising investments for startups.
- Supporting domestic developments and their commercialisation in domestic and foreign markets.
- Building cooperation between the state, business, and science through the creation of an innovation ecosystem.

In total, the Project supported more than 7,000 companies, whose total revenue amounted to more than 300 billion rubles, and the number of jobs created by them was about 90,000. The number of created startups exceeded 1,000. The Project is expected to support about 9,500 companies by the end of 2024, and their revenue will exceed 600 billion rubles.

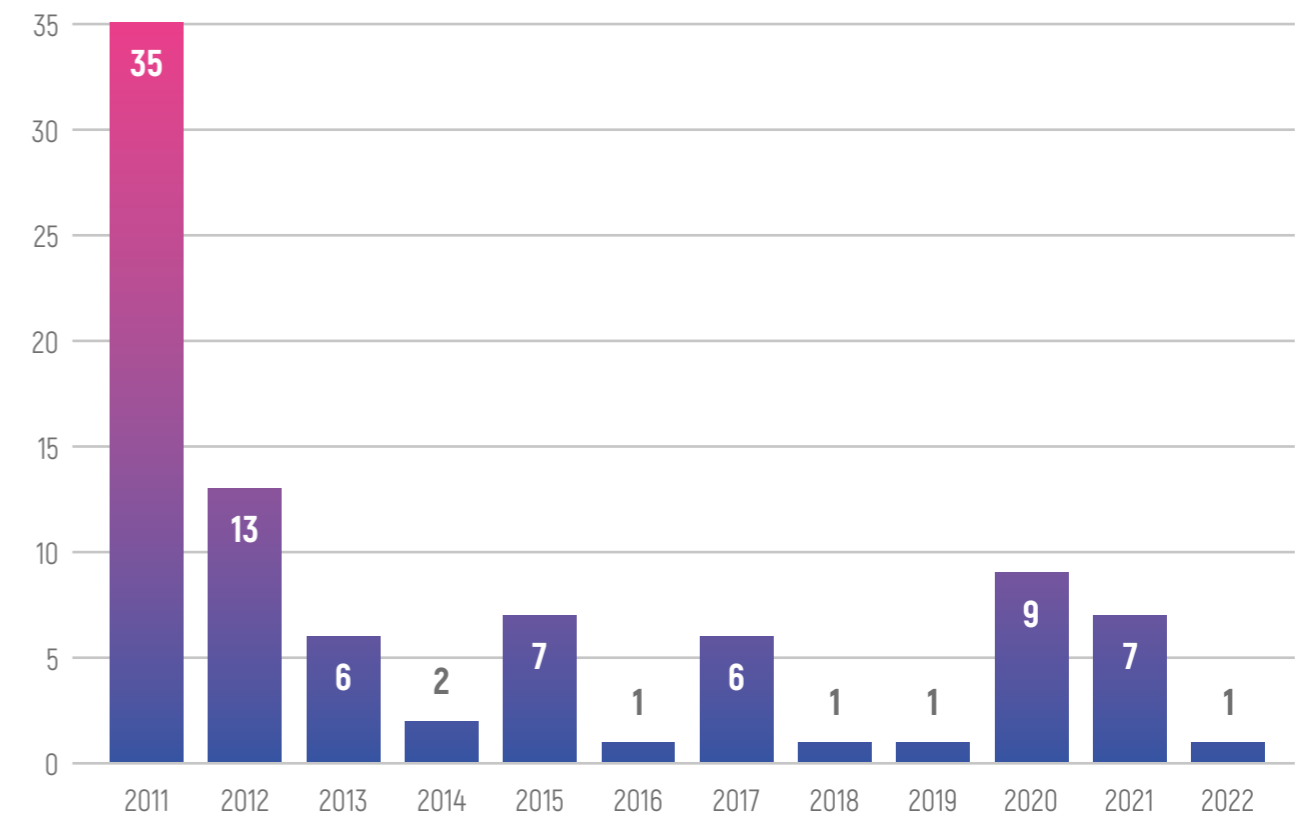
Over the period of the Project's existence, preferential loan agreements totalling over 29 billion rubles have been entered into with more than 180 high-tech companies as part of the preferential lending programme. More than 50 companies were supported under the "growth" programme for a total amount of 8.1 billion rubles, with the volume of extra-budgetary co-financing amounting to 9.1 billion rubles.

The crisis contributed to the reduction of IPOs in Russia: only 1 company<sup>54</sup> placed shares in 2022. Additionally, the Russian stock market is affected by the exit of foreign investors from the Russian market, the small number of domestic investor companies, and the predominant share of private investors<sup>55</sup>.

<sup>54</sup> Who revives the Russian IPO market.

<sup>55</sup> Shadows of past IPOs: How Russia's IPO market is trying to recover

## IPO DYNAMICS ON THE MOSCOW STOCK EXCHANGE BETWEEN 2011 AND 2022



Sources: Open Journal<sup>56</sup>, Forbes<sup>57</sup>

According to the forecasts of the Ministry of Economic Development of Russia, about 10 companies will place their shares on the Moscow Exchange<sup>58</sup> in 2023, including Astra Group, Eritreans, Crystal, and others<sup>59</sup>. This is due to a number of factors, including stabilisation of the geopolitical situation, increased activity of private investors, and overall market growth.

Furthermore, to support and promote the practice of public offerings on stock exchanges, the President of the Russian Federation instructed the Government and the Bank of Russia to work out additional measures to support IPOs, as well as to determine target values and ensure the calculation of actual values with regard to public offerings of companies' shares on the Russian financial market.

The instrument of public offering is an effective way to raise funds, assess the market value of a company, and increase its recognisability. For investors, it is an opportunity to earn money on the subsequent sale of shares, the value of which can increase several-fold.

The IPO of tech companies demonstrates the improvement of the investment climate in the innovation sphere, which becomes the basis for accelerating the country's technological development through the formation of large leading companies that implement innovative solutions.

<sup>56</sup> 7 companies that completed IPO on the Moscow Exchange in 2021

<sup>57</sup> Shadows of past IPOs: How Russia's IPO market is trying to recover

<sup>58</sup> The Ministry of Economic Development said it expects 10 IPOs in Russia in 2023

<sup>59</sup> Shadows of past IPOs: How Russia's IPO market is trying to recover

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24. [Shadows of past IPOs: How Russia's IPO market is trying to recover..](#)



# LIST OF COMPANIES THAT PARTICIPATED IN THE STUDY

- ALROSA JSC (PJSC)
- Mondi SLPK JSC
- Alfa-Bank JSC
- EETP JSC
- Inline Group JSC
- Academician M.F. Reshetnev Information Satellite System JSC
- Moscow Thermal Automation Plant JSC
- Scientific and Production Corporation Precision Instrumentation Systems JSC
- Nexign JSC
- United Engine Corporation JSC
- United Shipbuilding Corporation JSC
- Russian Post JSC
- Permsnabsbyt PPMTS JSC
- Rosselkhozbank JSC
- CKBM JSC
- VTB Bank (PJSC)
- Rosatom SC
- X5 Retail Group N.V.
- MKPAO OK RUSAL
- Russian Railways JSC
- Syktyvkar Tissue Group OJSC
- Gazprom CPS LLC
- Gazpromneft - Industrial Innovations LLC
- Gazpromneft-Snabzheniye LLC
- GK Innotech LLC
- Dr. Reddy's Laboratories LLC
- Green Technologies LLC
- IPC LLC
- IEK Holding LLC
- Cyberprotect LLC
- Led-Effect LLC (Elements Group)
- PSK Pharma LLC
- SVEZA LLC
- SL MedicalGroup LLC (CL LAB Medical Laboratory)
- Splat Global LLC
- TenChat LLC
- Fast Engineering LLC
- Electro Solutions LLC
- ROSVODOKANAL MC LLC
- Bank Uralsib PJSC
- MMC Norilsk Nickel PJSC
- Inter RAO PJSC
- Lukoil PJSC
- Magnit PJSC
- Magnitogorsk Iron and Steel Works PJSC
- MTS PJSC
- Rosseti Center PJSC
- Sberbank PJSC
- Severstal PJSC
- Softline PJSC

# GLOSSARY AND LIST OF ABBREVIATIONS

**Accelerator** means programmes for intensive development of companies through mentoring, training, financial and expert support in exchange for an equity stake in the company.

**Acceleration** means a time-limited process of accelerating the development of a startup.

**Agile (agile software development)** means a family of "flexible" approaches to software development. Such approaches are also sometimes referred to as frameworks or agile methodologies.

**Angel Round** means angel investment.

**Business angel** means a private investor who provides financial and sometimes advisory support to an early-stage innovative company in exchange for an equity stake in the company.

**Business development** means creating long-term value for the organisation, shaped by customers, markets and relationships. The business development process can be compared to choosing the right technical solutions when writing the core of a software product.

**CAPEX (Capital Expenditure)** means capital expenditure, i.e. the cost of acquiring, creating or improving a company's fixed assets, such as buildings, equipment, vehicles, etc. CAPEX is one of the key indicators of a company's financial performance and can be used to assess its investment appeal.

**Challenges of technological development** means a set of problems, threats and opportunities in the field of development and implementation of technologies, which require an objective response from the state and society, and whose complexity and scale are such that they cannot be solved, eliminated or realised by increasing resources alone without structural changes.

**Crowdfunding** means a form of collective investment in companies. Selling small shares of companies to non-accredited investors – ordinary Internet users.

**Crowdfunding site** means an Internet site that provides an opportunity to search for investors to finance projects in the field of information and communication technologies; a crowdfunding, crowdinvesting site containing information about projects and investors.

**Crowdsourcing** means attracting a wide range of people to solve certain problems of innovative production activities, in order to use their creative skills, knowledge and experience on a voluntary subcontracting basis with the use of info-communication technologies.

**Crowdfunding** means a way of collectively funding projects to support ideas and/or businesses in the form of donations or pre-ordering a product.

**Cooperative Research Center (CRC)** means an organisation established to carry out research and development in various fields, jointly with other organisations and enterprises. A CRC can be established as either a public or private organisation and can have various forms of cooperation, such as sharing equipment, personnel and financial resources. The purpose of establishing a CRC is to accelerate the research and development process, improve the efficiency of resource utilisation, and reduce the time and cost of conducting experiments.

**Dilution** means a reduction in the percentage of shares held by current shareholders out of the total number of shares.

**EBIT** means earnings before interest and tax. It is considered an indicator of an organisation's operational effectiveness.

**EBITDA** means earnings before interest, taxes, depreciation and amortisation. EBIT plus depreciation and amortisation.

**Fundraising** means the process of finding and raising money.

**Hackathon** means an event where groups of developers, designers and experts come together to create new projects or solve a specific problem in a limited amount of time (usually 24 to 48 hours).

**IRR** means internal rate of return, an indicator of cash flow profitability.

**Import substitution** means a strategy of economic development aimed at reducing the country's dependence on imported products and services, as well as at increasing the production and export of its own goods and services. For this purpose, various measures can be used, such as imposing tariffs on imported goods, subsidising domestic production, stimulating innovation and developing scientific and technological potential. The goal of import substitution is to strengthen the country's economic independence and increase its competitiveness in global markets.

**Incubator** means a company's unit that supports startups at all stages of their development.

**Innovation center/hub** means a place where people working on innovative projects and ideas come together. It is a space for collaboration, knowledge and experience sharing, and events to support innovation and business development. An innovation center/hub can be established as an independent organisation or be part of a larger company. Such centers/hubs can facilitate the creation of new products, services and technologies, as well as stimulate economic growth and development of the region.

**Internal innovation activity** means the process of creating new ideas, products, services or processes within an organisation. It can be carried out by improving existing processes or creating new, more efficient ones. Internal innovation can be driven by market competition, changed customer needs, technological changes or changes in laws.

**IPO** means initial public offering.

**IPO** means something that all new startups strive for, but not all of them successfully complete the journey. Technically, an IPO is just another way to raise money from people. But there is another reason to enter the stock market: those who have invested so far want a return on their investment sooner or later. Venture capital funds have fixed investment cycles of three to five years. After that, they're looking for an exit.

**Kanban** means a "balance approach". Its task is to balance different specialists within the team and avoid the situation when designers work all day long and developers complain about the lack of new tasks.

**Key performance indicator (KPI)** means a specific indicator that is used to measure success or failure in achieving certain goals and objectives. KPIs help top managers evaluate the effectiveness of their actions and make data-based decisions.

**Late stages** means the stage of a startup's lifecycle when product testing takes place, as well as all subsequent stages of the startup's development until its sale/IPO.

**Leverage** means a ratio between own funds and external investments.

**Middle management** means an intermediate position between entry-level employees and top-level employees. Entry-level or junior-level employees report to middle managers, while middle managers report to top managers.

**MVP** means a minimum viable prototype.

**National Technology Initiative (NTI)** means a long-term programme aimed at creating favorable conditions for Russian companies to become leaders in new high-tech markets that will determine the global economic structure in the next 15–20 years.

**NPV** means net present value. The present value of future cash flows of an investment project, calculated on a discounted basis, net of investment.

**Open corporate innovations** means the introduction of innovative solutions by companies through the involvement of external resources, technologies, experts, and teams.

**Pilot** means a manual test run of a product/service/technology.

**Post money** means the company valuation taking into account the investment received.

**Pre-money** means the company valuation prior to an investment in that company.

**Pre-seed stage** means the stage of a startup's lifecycle when the project idea is formed and elaborated (it is considered an early stage of a startup's development).

**Prototype** means a working model which has only basic functions.

**Revenue sharing** means distribution of income/losses between partners.

**R&N Center** means a unit within the company dedicated to finding and selecting innovative solutions for business development.

**ROI** means return on investment.

**Scrum** means a "structure approach". An all-round team of specialists works on each project, joined by two more people: a product owner and a scrum master. Scrum divides the workflow into equal sprints of one week to one month.

**Scaling** means the process of multiplying the scale of a business (number of customers and/or turnover).

**Seed stage** means the stage of a startup's lifecycle when the idea is refined, a business plan is written, and the first prototype is created (it is considered an early stage of a startup's development).

**Smart money** means a concept of financing startups. External financing that comes with the expertise that is important for the startup, assistance with the operational management or with the entry into new markets. This definition is most commonly understood as money raised from a specialised venture capital fund.

**SMART** means principles of defining tasks for an employee: tasks should be specific, measurable, achievable, realistic and time-related (time-bound).

**Sourcing** means raising external funds to carry out a company's internal business processes.

**Startup** means an organisation created to find a profitable scalable business model under conditions of extreme uncertainty and limited resources with the goal of rapid growth.

**Term sheet** means a memorandum of approval of the basic agreements on the terms and procedure of investment (it is not a legally binding document).

**Top manager** means a high-ranking executive in a company or organisation who is responsible for strategic management and makes key decisions related to business development. He usually holds the position of CEO, president, executive director or other high-ranking position. Top managers are responsible for shaping and implementing the company's strategy, managing finance, marketing, production, human resources and other key areas of the business. They are also responsible for communicating with investors, partners and other stakeholders.

**Trial** means free use of a product for a short period of time, after which you must either buy the product or stop using it.



**Turnaround** means changing from a loss-making course to a potentially profitable one.

**Unicorn** means a company worth over a billion dollars.

**Value** means the ratio between the benefits a consumer receives as a result of acquiring and using a product and the cost of acquiring and using it.

**Valuation** means an estimated price of a company, usually determined at the time of its financing.

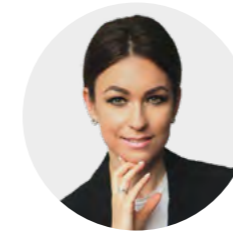
**Venture capital investment** means capital invested in the riskier stages: the early stage and expansion stage of companies.

**Venture capitalist** means a person who invests money of a venture capital fund. Investors put money into a business, rather than into an idea or innovation (see business angel).

**Venture capital fund** means a portfolio of assets with or without establishing a legal entity, which is formed by pooling contributions (in monetary form, unless otherwise provided for by the structure of the transaction). The investment strategy of a venture capital fund is to acquire securities (shares) of exclusively innovative companies.

**WIP** means work in progress. Partially executed agreements.

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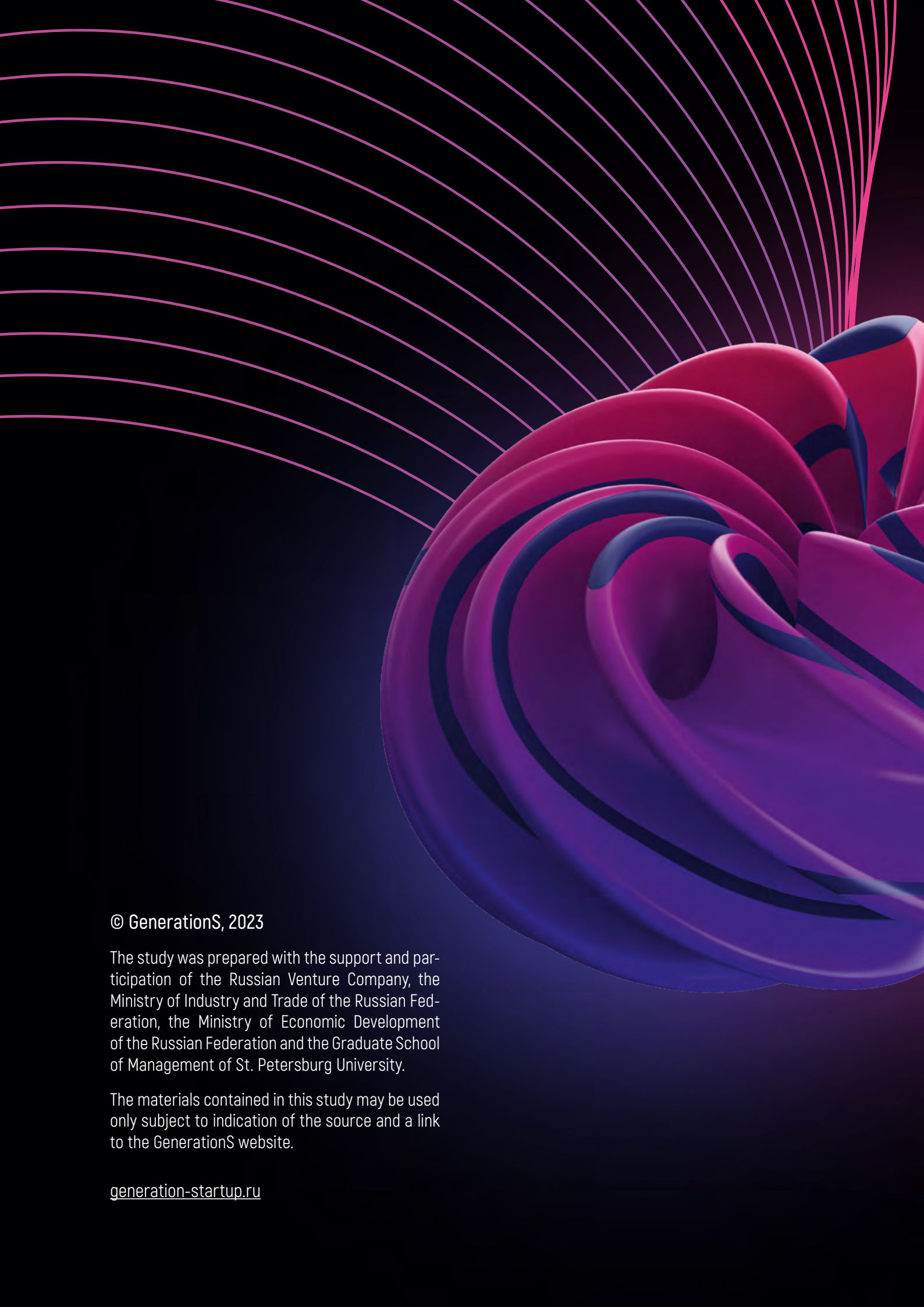
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The background features a series of thin, curved pink lines that fan out from the top right towards the left. In the lower right quadrant, there is a complex, three-dimensional structure made of thick, overlapping ribbons in shades of pink and blue, resembling a stylized flower or a modern architectural form.

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