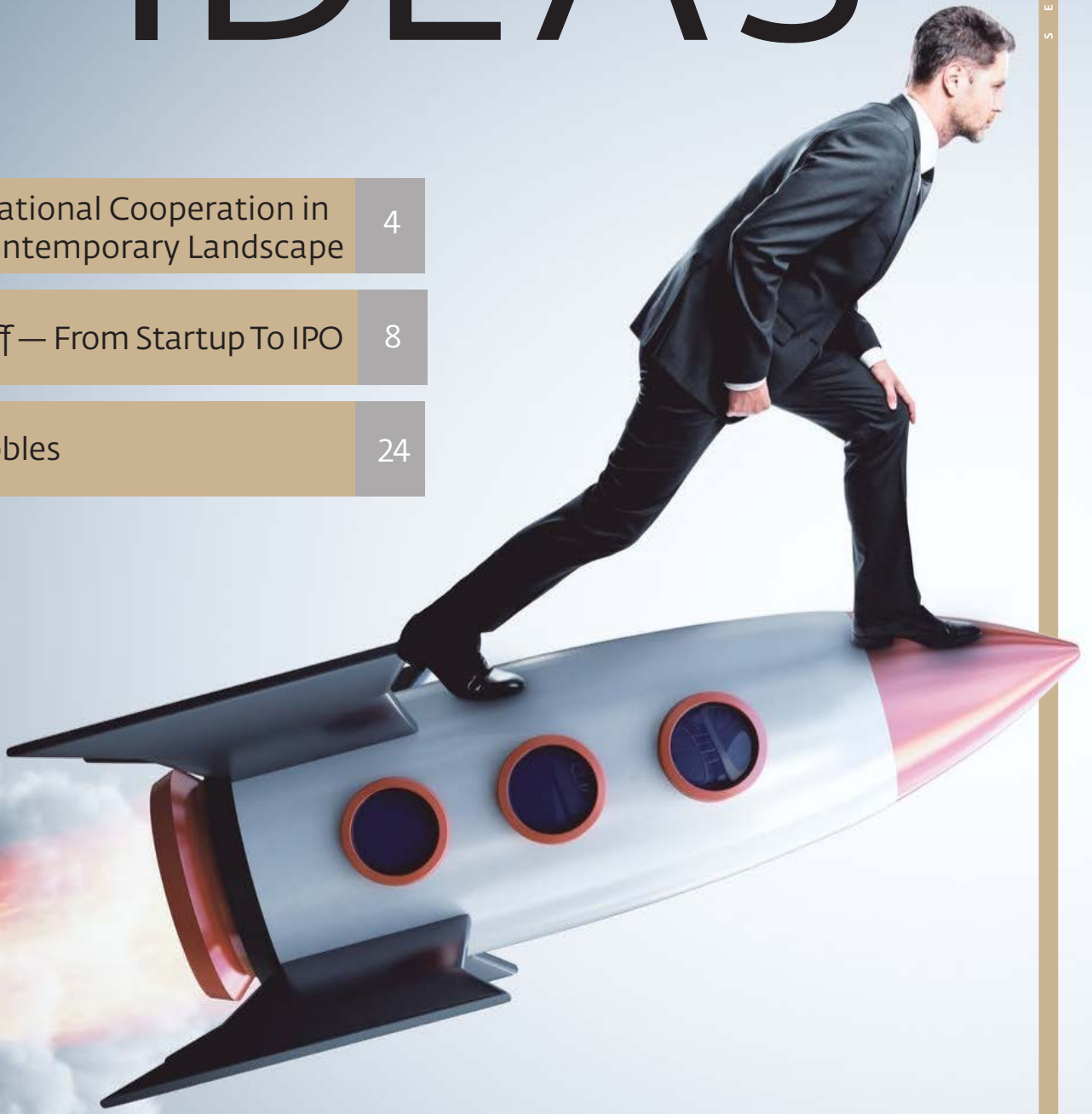


CAPITAL IDEAS

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INTERNATIONAL COOPERATION IN THE CONTEMPORARY LANDSCAPE

The summer of 2023 bore witness to a constellation of international forums and gatherings with Russia's involvement. In the face of concerted Western endeavors to exclude our nation from diverse international consortia, the enduring spirit of international cooperation, coupled with the cultivation of local economic ties, endures with unwavering Russian participation. In this context, we had the privilege of engaging in a conversation with Mr. Daniil Algulyan, the Deputy Chairman of VEB.RF.

Mr. Algulyan, you had the distinguished honor of representing VEB.RF at the BRICS summit held in August. The onslaught of sanctions upon Russia has imparted considerable strain upon the interactions between financial institutions. Could you expound upon the solutions you proffered during the summit?

In recent years, Russia has ardently championed the cause of conducting settlements in national currencies. A substantial body of work has been diligently executed in this domain,

and the year 2022 substantiated the soundness of our approach. The efficacy of settlements transacted in traditional reserve currencies was significantly impeded, a predicament that reverberated not only across Russia but also across the economic interests of numerous countries, including the esteemed members of BRICS. Notwithstanding the formidable challenges that loomed, a majority of bilateral settlements transpired in national currencies. This trajectory is poised for exponential ascent in the ensuing years. The cultivation

of a robust payment infrastructure centered around national currencies necessitates an extensive overhaul of the modus operandi governing international settlements as adopted by central banks and financial institutions. Furthermore, the development of innovative financial instruments assumes a position of paramount importance. Given the pivotal role that BRICS nations assume within the realm of international trade, this consortium stands as a pioneering crucible wherein novel paradigms of cooperation, encompassing facets ranging from clearing operations to interbank transactions, are conceptualized and unveiled.

How would you assess the prospects of BRICS following the impending inclusion of new member nations that have expressed a fervent desire to partake in this illustrious assembly? Could the addition of new members potentially encumber the decision-making processes pertaining to project financing?

We wholeheartedly endorse the prospect of welcoming new nations into the BRICS fold, as this development accentuates the profound significance of this forum for international collaboration. It stands as a testament to the rightful claim of emerging nations, which play a pivotal role in shaping our collective development agenda, to exert influence upon global decision-making processes. Their voices ought to be heard, and the BRICS framework facilitates the establishment of a unified stance on a wide spectrum of issues, thoughtfully accounting for the distinct challenges and intricacies encountered by member countries. This holds particular relevance in addressing concerns associated with sustainable development objectives, climate change mitigation, and the pursuit of equitable transitions.

I discern no inherent contradictions in the expansion of the BRICS membership roster. In fact, I posit that this expansion is poised to fortify the dynamics of project financing within the consortium. Without question, it shall bolster financial cooperation amongst the development institutions of BRICS countries and conceivably engender a proliferation of multi-lateral projects that involve participation from three or more BRICS member nations.

At the recently concluded St. Petersburg International Economic Forum (SPIEF), in a prelude to the plenary meeting attended by Russia's President Vladimir Putin, Mr. Igor Shuvalov, Chairman of VEB.RF, opined that "the ruble's prospects of attaining the status of a regional reserve currency remain notably high." Could you delineate the factors underpinning this assertion?

The ruble's share in Russia's foreign trade is currently growing. This augments the economic underpinnings and unfurls new avenues for the expansion of the ruble's role within the financial systems of partner nations. The contemporary milieu begets a consistent demand for the Russian currency and financial instruments denominated therein, particularly within the ambit of Eurasian integration countries.

In the realm of sustainable finance, Russia, with the active participation of VEB.RF, has diligently forged the groundwork for

the burgeoning green financing market. It is noteworthy that the BRICS summit, too, directed its attention toward the critical discourse of ESG issues. Could you please elaborate on that?

We have made substantial headway in this domain, having collaboratively devised a national methodology in partnership with the Ministry of Economic Development. It is worth noting that as early as 2021, the Climate Bonds Initiative attested to the alignment of the Russian green financing system with global best practices. Additionally, the OECD has lauded the Russian green taxonomy as one of the most advanced in the world. In response to market demands, we have also pioneered the creation of a comprehensive taxonomy of social impact projects. At present, a commendable portfolio of 15 financial instruments, with a cumulative value of USD 4.5 billion, has been issued, adhering steadfastly to our national methodology.

We firmly believe that beyond the purview of green projects, transitional and adaptation endeavors hold profound importance, particularly for economies in the nascent stages of development. Notably, several industries with a substantial ecological footprint, such as waste treatment, oil and gas, and coal processing, find themselves presently excluded from the ambit of green financing. However, we contend that the inclusion of such projects into the fold will invariably attract investor financing, thereby expeditiously mitigating CO₂ emissions and pollutants.

To elucidate, in the context of Russia, the cost of reducing one ton of CO₂ emissions through the implementation of an adaptation project stands at a mere USD 1, whereas green projects may entail a cost as high as USD 32 per ton.

It is our steadfast conviction that every VEB.RF initiative should be in consonance with ESG practices. In essence, this entails a relentless dedication to enhancing public well-being and advancing one or more of the United Nations' Sustainable Development Goals. Moreover, our endeavors steadfastly incorporate the deployment of the most cutting-edge technologies available.

In 2022, VEB.RF participated in 28 green projects, collectively valued at over RUB 1.5 trillion. As a further testament to our commitment, we successfully launched our pilot green bonds, further amplifying our involvement in the sustainable finance sphere.

As we contemplate the landscape of Russia's foreign investment, could you illuminate the emerging priority areas that are now gaining prominence?

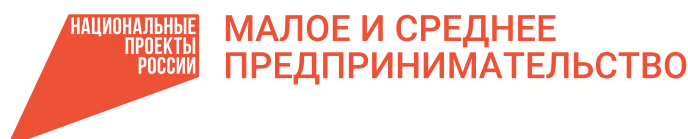
The development of global transport and logistics infrastructure stands as one of the foremost priorities beckoning Russian financial institutions. We currently find ourselves in the midst of a transformative phase, characterized by the realignment of product supply routes and the exploration of novel export markets. These developments necessitate a commensurate expansion in logistics capacities. In tandem, the demand for innovative financial instruments and products tailored to service these evolving requirements is becoming increasingly pronounced. CI

TAKEOFF – FROM STARTUP TO IPO

The Russian Government's "Takeoff — From Startup To IPO" strategic initiative is a set of support measures for innovative companies. Implementation of the initiative facilitates modernization and technological development of domestic companies, helps raise their competitive capabilities. The project envisions implementation of a whole range of support measures, focusing on companies at various stages of development and technology availability. Multiple mechanisms are used at every support phase. For instance, development institutions, such as the Fund for Infrastructure and Educational Programs (FIEP) or Skoltech are implementing specialized educational programs. Innovative companies could also participate in acceleration programs and "growing" for enterprises, developing tech products for private and government-owned companies of our country.


A preferential loan program is offered specifically for supporting high-tech innovative small and medium businesses under the "Takeoff — From Startup To IPO" strategic initiative. Amounts up to RUB 500 million are available at 3% per year for three years.

To qualify for a loan, a company has to be an SME business and has to operate in one of 16 priority areas. It is also required to generate annual revenues over RUB100 million with average annual revenue growth starting from 12%, plus it has to own intellectual property rights. Innovation potential is assessed by the Expert Council of the SC "Russian Small & Medium Business Corporation". Applications for a preferential loan can be submitted via the Digital Platform for small and medium businesses, where boxes could be pre-populated from a user profile.



Alexander Isayevich

CEO of SC "Russian Small & Medium Business Corporation"

Upon review of intermediate implementation results under the preferential program, eligibility conditions have been adjusted. For instance, now only a short list of documents for project innovation potential assessment is required, there are no limitations on the number of contracts under the program, revenue growth rate calculations and primary activity field definitions have been simplified. The "Takeoff — From Startup To IPO" initiative demonstrates high demand for grant support. This support is made available via the Center for Engineering and Innovation Support, which could provide amounts from RUB 25 million to RUB 250 million. Grant applications should provide rationale for a requested amount, applicants should be ready to co-finance their projects with their own or raised funds for at least the same amount. Grant support is made available for three years, and project implementation may take up to six years. Any Russian commercial company with no debt, with revenue of up to RUB10 billion (revenues over the latest reporting year must be four or more times higher than the requested grant amount) may apply for a grant. Plus, there should be a customer, interested in a produced product, and successful experience in launching technology products. What is essential that any projects at the level of ideas will not be financed. Projects must be elaborated to a certain degree. Grant and loan application processes have been simplified to the maximum and are performed online. Information about all conditions and competitive selections is available at the website of the Center for Engineering and Innovation Support, applications are submitted through the information system of the center. 

TAKEOFF TO NEW DEVELOPMENT LEVEL

Lyubov Gumennik

CEO of MEGA Orthopedic, shares her experience of participating in "Takeoff - from startup to IPO" program, which has helped not only expand the business, but enter new markets as well.



If we look at the requirements to "Takeoff- from Startup to IPO" program participants, it turns out that only a successful company with the annual growth rate of at least 12% could be eligible for it. Why did you decide to join the program?


We are committed to developing, we are constantly expanding, looking for growth opportunities. We are tracking initiatives, offered by both federal and regional authorities. I call this a "businessman's active civic engagement". Every year we set higher goals and strive to achieve these.

How did the program stimulate further development of the company?

– This program did not just help us, it had saved us during the COVID crisis, and not only us, but our suppliers as well. Under the program we got a credit facility with minimal interest rate - 8,5%. At the time bank rates went as high as 25%. This was a subsidized program for 20 million. MEGA Orthopedic works not only with Russian companies, we have suppliers from other countries, for instance, we have a leather supplier from Belorussia. Owing to the program, we could place orders with our partners, and secondly, we made 100% down payments and thus fixed the price. For example, our supplier of soles got an order for ten thousand pairs, and this accounted for almost half a year of operations of the enterprise. Before that we had never ordered such volumes, we took two thousand pairs at most, because we lacked sufficient funding. Due to higher volumes, our company has managed to significantly expand its market presence. I would specifically note our entry into marketplaces, particularly Wildberries, which gave manufacturers major discounts and charged very low fees, that's why we had competitive prices. We

were actively going into external markets. We started out with promotion at industry fairs in various countries, for example, we presented our products at exhibitions in China, Serbia, Kazakhstan. Our foreign trade activities helped us set up strong ties with customers from Armenia, Kyrgyzstan and Serbia. By the way, our products sold very well in Poland. Now, given the current situation, the number of international contracts has gone down. Today we are continuing our cooperation with customers from Belorussia and Kazakhstan, I would like to point out that we have very active cooperation with our Kazakh colleagues. We are not quitting our foreign market efforts, we have great appetite for it and have done a lot of groundwork. This is why thanks to "Takeoff- from Startup to IPO" program we managed to significantly expand our business and reach a new level of development. It was a breakthrough for us.

Does the company require any additional support in any of its areas of operations?

It always does. I'd like to say that lately our federal government and regional authorities do a lot in support of businesses. This is very visible. MEGA Orthopedic is getting this support as well. For example, at a meeting of businessmen with Mikhail Mishustin, Prime-Minister of the RF, I mentioned our issue with lease of premises. We leased premises from a commercial company and it was a major expense item significantly pressuring our business. We got help on this issue and a three-story building was leased to us. This is a municipal building within walking distance from a commuter train station and a bus station. Yes, we would still need to make some changes there in time, but now we have significant lease savings. Our company constantly uses microfinancing, micro loans at 2%. And we are making use of this opportunity, it helps a lot in our development. These loans help MEGA Orthopedic keep low prices, so that an average buyer could afford our genuine leather orthopedic shoes, which should be available to any child. 


MEGA Orthopedic (Ramenskoye, Moscow region) manufactures over 100 footwear models. Products by MEGA Orthopedic are manufactured under a unique technology at cutting-edge CNC equipment and with the use of 3D technologies. Shoe uppers and lining are made only from 100% premium genuine cowhide leather. The products are sold in all Russian regions and exported to neighboring countries.

HOW TO INCREASE TURNOVER BY 5 TIME



CHROMOS ENGINEERING company has participated in “Take-off- From Startup to IPO” and has received RUB500 million for development purposes. Tatiana Pushkina, financial director of **CHROMOS ENGINEERING**, explains how the program helped the company achieve a new development level

Chromos Engineering is a modern Russian enterprise which since 1994 has been developing and manufacturing industrial and lab chromatographs - devices, detecting composition of a mixture and impurities, and measurement outputs are used to generate qualitative process values, ensure technology security and resource saving for energy flows. Devices by Chromos Engineering are used to develop GOST standards, produce standard state reference sample mixtures, test methodologies, evidencing high metrological properties of the equipment. Our products are efficiently used in all areas and industry sectors – oil, gas, chemistry, pharmaceuticals, medicine, food industry, environmental and health protection; our products are used in 65% measurements in metrology. Our equipment is successfully used by such major companies as Rosneft, Gazprom, Gazpromneft, SIBUR, LUKOIL and such national universities as Lomonosov Moscow State University, Gubkin Russian State Oil and Gas University, Mendeleev Institute for Metrology, as well as over a

hundred other institutes and universities. The company has a full-cycle in-house production. Over the latest years the company has been focusing on implementing digitalization in the area of chromatography. Industrial chromatography enables reduction of the amount of lab tests, rules out human factor in sample selection, transportation, storage and injection into a lab chromatograph dispenser; it facilitates opportunities to implement digital technologies into analytical monitoring and also significantly simplifies maintenance. In 2022 the turnover of Chromos Engineering tripled versus the year of 2021. But we lacked investments for further development. The government provided our company with multiple support measures, including an opportunity to participate in the “Takeoff- From Startup to IPO” preferential loan program. It was vital for us, since we would not have been able to deliver on all our contracts without additional funding. The program enabled us to increase our inventory reserve, reduce contract terms, and subsequently, in 2023 the turnover of the company doubled versus the year of 2022 and rose by five times as compared to 2021. Currently the company is continuously developing, designing and implementing new technologies, ramping up production capacity, opening new service centers across the country. Since our operational geography is vast and stretches from Moscow to Vladivostok, we need additional investment support measures. We are also increasing our presence at foreign markets too, particularly, we have opened branches in the UAE, Uzbekistan. We have plans for further expansion to international markets. In 2023 an industrial mortgage program was launched in full. In the near future we are planning to file an application and counting on bank support. Pursuing this goal, we will continue implementation of our plans, we will keep expanding our production and creating more jobs. 

NOTHING MATTERS MORE THAN PEOPLE IN OUR BUSINESS

The Novosibirsk Scientific and Technical Center (NSTC) was founded in the spring of 2012 as a Novosibirsk Technopark resident. The primary business of the company – Digital technologies in well site construction and field development

The company performs modeling and development of measurement systems, software development, consulting and research.

Production of high-tech equipment, software development and other innovative activities cannot manage without a stream of funds for development. Dmitry Tailakov, executive director of the Novosibirsk Scientific and Technical Center, speaks on how a government program has helped the company reach new heights.

Looking at the requirements to the “Takeoff- From Startup to IPO” program participants, it turns out that only successful companies with average annual growth rates of at least 12% would qualify for the program. Why did you decide to join the program?


This program has helped us raise additional financing at a reduced interest rate. Under the “Takeoff- From Startup to IPO” program we got RUB100 million at 3% per year. NSTC is a fast growing company, and we are very much in need of funds for our development, and we are investing all our resources into development. Nothing matters more than people in our business, we seek to hire the best specialists available on the market and provide them with competitive pay and working conditions, and for these purposes we buy additional equipment, expand our production facilities and office spaces. These growth rates are very hard to maintain. At this stage we never even look at any profit for founders, everything goes towards development of the company.

How did the program stimulate your further development? Do you have any results?



We have just made a major contract, exceeding our last year's revenue. Unfortunately, this contract does not provide for sufficient money advancing, but the funds that we have received under the program enable us to perform the contract without any violations of its conditions, because the interest rate is minimal. Considering our other agreements, we have plans to at least double our turnover as compared to the last year. As for the numbers, starting from 2020 our turnover has increased by 2,5 times, and profits grew by 8 times, and our headcount has tripled!

Does your company need any additional support from the state, and if it does, which areas would be funded?

We do, indeed. Our company offers engineering developments, manufactures high-tech equipment and develops software for large digital platforms of the oil and gas sector. The specific feature of our business is our cooperation with very large companies, which do not provide for any advance financing, and this makes it hard for us. I believe this issue must be considered at the government level, for example, they could establish a required advance payment share, or set up some funds that could help and issue funds under government guarantees, or create other financial institutions that would help such companies as our company with required financing and ensure work performance. 



KARL MARX WOULD BE STUNNED: CHINA BLENDS SOCIALISM AND MARKET ECONOMY

In most publications appearing in the world media, China is presented either as a Powerful Virtue or as an Absolute Evil, but almost never as a normal developing country which is recording achievements, tackling problems and learning from mistakes. Yuri Tavrovsky, Orientalist, Head of the Expert Council of the Russian-Chinese Friendship, Peace and Cooperation Committee, explained the specifics of China in an exclusive interview with Capital Ideas magazine.

Would it be fair to say that China's economy has recovered after the COVID pandemic and is well on track of growth again?

The coronavirus pandemic, which lasted for about three years, greatly affected the pace of development of many countries, and China is no exception. Suffice to say that Chinese exports have declined and this, in particular, is due to the overall problems that burdened the global economy and to the decline in market demand for Chinese goods. Imports slumped as a result of the domestic demand crunch – the lynchpin of growth that the Chinese authorities largely relied upon after the abolition of the “zero tolerance” policy for coronavirus pandemic.

Nevertheless, according to the Chinese officials' pronouncements, in the most challenging times of crisis, the stability of the PRC's economy was ensured by a system of “socialism with Chinese specifics.” In other words, free market and socialist (government planned) economies successfully coexist in the country, and, without contradicting each other, create growth under the leadership and control of the Communist Party of China (CCP).

Karl Marx would have been very much surprised to hear about “market communists”, wouldn't he?

First of all, the CCP keeps under its control the sector of the socialist (state-owned and state-managed) economy. It embraces banks, transportation companies, power grids, infrastructure, communications, etc.

Currently, the socialist sector is expanding its footprint and consolidates its strength in China. The country is progressing according to the patterns of Soviet times based on five-year development plans and centralized planning mechanism. At the same time, according to official data, the market economy, capitalist by nature, generates about 60% of China's GDP, incorporates 80% of all jobs and provides 60% of all Chinese exports.

Today, Chinese “Marxists” are mostly pragmatists and realists. They have set grand goals and keep moving ahead despite the Chinese economy encountering various problems and challenges. For the sake of overcoming hardships, the Chinese are ready to make certain compromises with their competitors and even enemies.

Nevertheless, the slogan “Catch up and overtake America” remains well in place?

Beijing is genuinely obsessed with the idea of ensuring the “Great Revival of the Chinese Nation,” which means, as the Chinese see it, reformatting China into a powerful, comprehensively developed socialist state. The country's leadership has set a task for the society: by 2049, when China will celebrate the 100th anniversary of the proclamation of the People's Republic of China, to surpass the United States and make China the number one economy in the world.

No matter what the West says playing up huge problems befalling the Chinese economy, this year China is expected to record GDP growth of 5.2 - 5.5%. As a comparison, according to the forecasts of the World Bank, the United States will show a 1.8% GDP growth.

How come Russia's share in the total trade turnover of the PRC is equal to a mere 3 percent?

At present, Russia's trade with China is growing at such a remarkable pace that its expansion is limited only by transportation and logistics capacity, as well as by the underdevelopment of financial institutions and instruments.

From January to August 2023, trade between the two countries went up by 32% compared to the same period last year and reached \$155.1 billion. For many years, Russia paid for imports from China mainly in US dollars, although the share of settlements in rubles and yuan has been steadily growing since 2014. By September 2023, the share has surged to almost 40%.

The upbound trend is impressive, but Moscow and Beijing believe that the two nations have a huge potential for even more successful cooperation. Trade turnover, according to experts, in the coming years may be brought up to \$500 billion.

We should not forget that since 1978, when Deng Xiaoping came to power and established relations with the United States, China has been integrated into the Western economic community and remains still firmly interconnected with it. Russia came up to the forefront (as trade partner) quite late, and from the point of view of the economic development patterns, we are not yet in the same category to compete on par with the USA, Europe or even Southeast Asia.

As revealed by recently released data, trade between China and ASEAN countries in 2022 reached a record level of \$975 billion! The European Union (over \$700 billion) and the United States (\$690 billion) occupy the second place.

Why would China need Russia in this case?

We have a common border stretching some 4,300 km. Over the 400 years of coexistence, we were involved in conflicts but never fought a full-fledged war with each other. Presently, when enemies are trying their best to surround China from all sides, Russia presents a guaranteed peaceful northern border. The Chinese are confident that no one will shoot in the back from the Russian side.

From a military point of view, Russia provides the strategic depth. This is not an exaggeration. The Chinese today receive up to 80% of raw materials by sea, from the Middle East, from Africa, and all the traffic goes through the South China Sea that is under the control of the US 7th Fleet. This means that at any moment this trade route could be cut off. It would be an easy task for the Americans to block access through the Strait of Malacca. China is a next-door neighbour of Russia and is linked to Russia by oil pipelines, gas pipelines, and railways, which could not be obstructed by the United States.

As a matter of fact, this is not only a trade and economic advantage but also a matter of survival. It is no coincidence that during recent interaction between Vladimir Putin and Xi Jinping, the emphasis was placed on the development of transport routes between the two countries.

The Chinese are just starting to come out of the shadows. Do you remember how Deng Xiaoping bequeathed to his



compatriots at the time: “Stay in the shadows, accumulate strength, wait for an opportunity and in no case stick out.”

The Chinese, who have been in the shadows for a long time, do have now the necessary strength, but they lack military and international experience of Russia. In this sense, Moscow is a very important partner and counsellor for Beijing.

Let me give you some facts testifying to the importance of the Russian Federation for China. In the first 7 months of 2023, China increased oil imports from Russia by 25% compared to the same period last year, which amounted to over 60 million tons. LNG imports also surged by 62% and exceeded 4.4 million tons. Russian pipeline gas supplies to China have almost doubled.

Why then there are practically no Chinese investments in the Russian economy, and there are no Russian investments in China?

We started interacting rather late because the Chinese did not have confidence in the stability ensured in Russia. I see this as the main explanation.

I think that the political will of the leaders of our countries is no less important for China and for Russia. In any case, there was no political decision to invest in the Russian economy taken by China until recently, but now we have it. As far as I remember, it was during Xi Jinping’s visit in March this year when he said, “some problems pertaining investments will be solved.” Apparently, this is why Moscow is now literally flooded with Chinese delegations, some of which are examining lucrative investment projects in the Russian Federation.

Isn’t there a danger that Russia might become economically dependent on China?

The Russian economy is 10 times smaller compared to the Chinese economy; the Ruble is 10 times cheaper than the Yuan, but, nevertheless, Vladimir Putin and Xi Jinping speak on equal terms. This does not mean that Moscow has always approved the projects proposed by the PRC. Here is just one example: the Chinese Belt and Road Initiative, which involves a set of projects in various fields to promote and deliver Chinese goods to the world market, has attracted the attention of 180 countries and 31 international organizations. Russia refused to join in. Why? Because it obviously does not meet its national interests.

From the very beginning, Moscow has been saying that the new Silk Road is aimed at tearing Central Asia away from Russia, and that the Chinese initiative in general contradicts our interests. In order to put an end to these objections, an agreement was signed in 2015 on the integration



of the Silk Road initiative and the projects of the Eurasian Economic Union.

Russia officially has no prejudices against the Belt and Road projects, but we are not directly involved. We have our own national interests, and the Chinese have their own.

I think that perhaps now, in the new geopolitical situation, changes would occur and some joint infrastructure projects with China would be launched, however, on a bilateral basis, and not within the global initiative of the “new Silk Road”.

The West claims that China will allegedly begin to demand parts of Siberia and the Far East in a matter of five to seven years...

The question immediately arises: why not in a year or, say, in ten years? The Chinese already have a lot of problems with their territories that border Russia. First of all, we are talking about three economically backward provinces: Heilongjiang, Liaoning and Jinlin. Beijing is pumping huge amounts of money so that the three regions could more or less keep up with the rich coastal provinces that have established dynamic trade turnover with the West. It is difficult to imagine that the Chinese will begin to claim millions of hectares of Russian land. They would have time to catch their breath by 2049.

The Chinese could try to absorb the territory of Siberia or the Russian Far East, but only in one case only: if Russia begins to fall apart, and the Americans or the Japanese would display the intention to take over this land.

Is it true that China wanted to pump fresh water from Lake Baikal and even planned to build a water pipeline to its border?

Water is probably more important for China than oil and gas. The thing is that the Chinese have managed to pollute a lot of their rivers and lakes with toxic chemicals over de-

ades of rapid economic development. Across the country, according to various estimates, from 40 to 60% of water resources have become unsuitable for agriculture and human consumption. In Beijing, they even decided to attempt to re-route some tributaries of the Amur River and the channel of the Black Irtysh River towards China. This is true that some time ago there was a joint project with Russia to build a water pipeline that was supposed to pump water from Lake Baikal to China. The Russian public stood up to protect the lake and this idea fell flat.

From your point of view, how are the relations between the two capitals, Moscow and Beijing, developing so far?

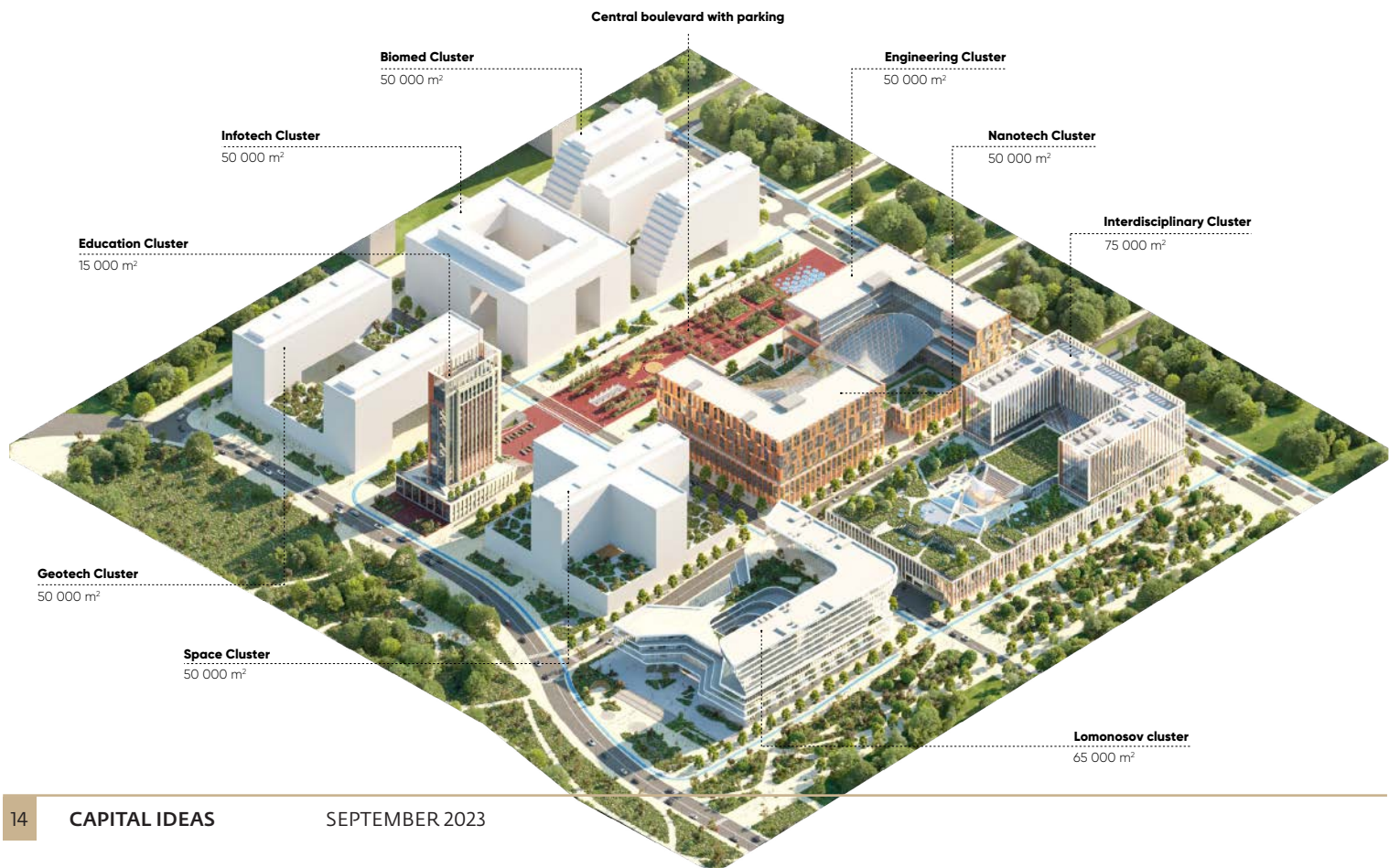
The mayors of Moscow and Beijing, Sergei Sobyenin and Chen Jining, are working on the basis of a program of cooperation signed by the governments of the two capitals. It embraces such areas as the construction of subway in the Russian capital, exchange of good practices in various spheres of the economy, including urban management and traffic flows. Both mayors adhere to the concept that the two sides have something to learn from each other.

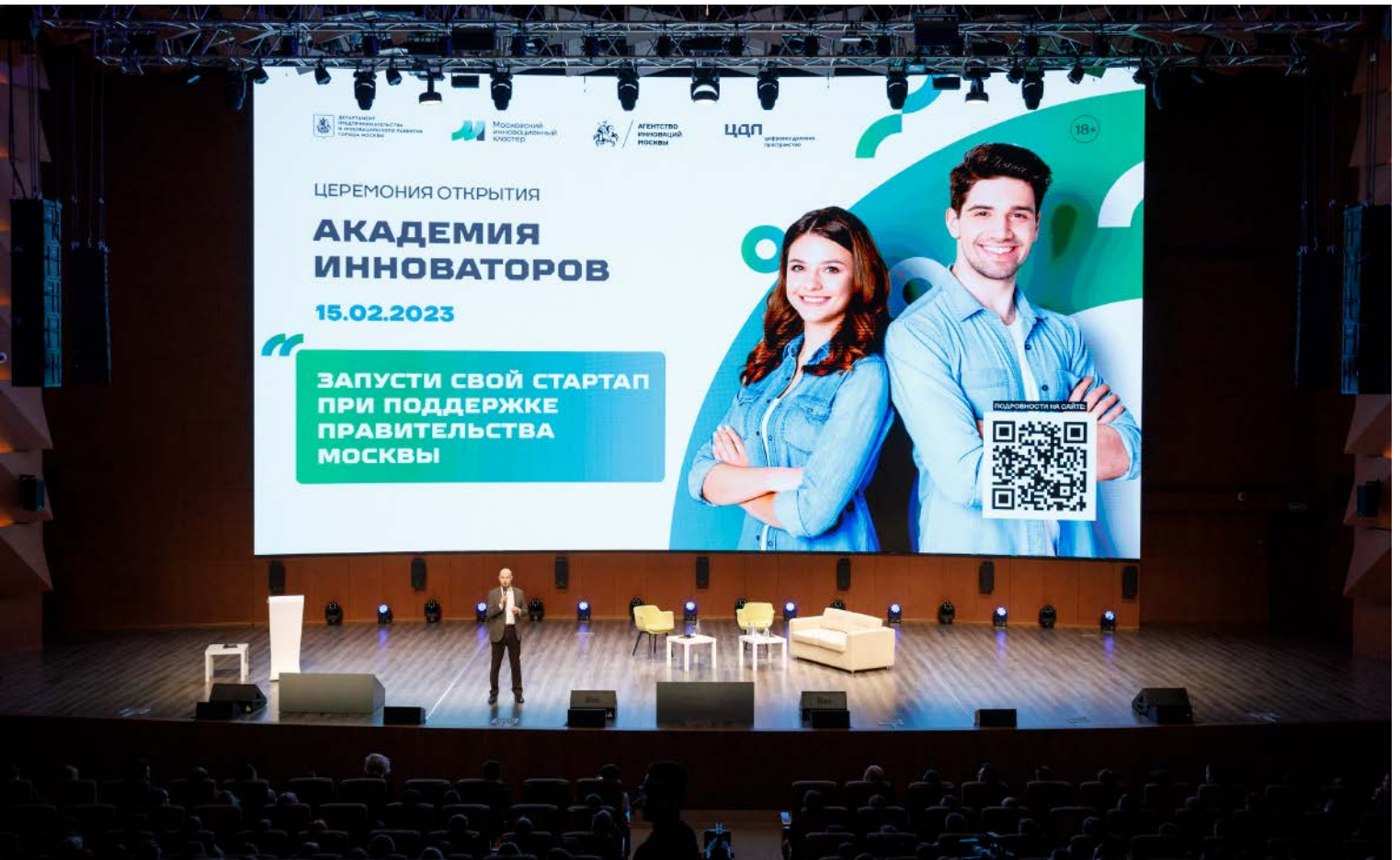
In the neighboring province of Hebei, on the personal instructions of President Xi Jinping, a new satellite city of Xiongan is being built. It will acquire the so-called “non-capital functions” since foreign embassies will remain in Beijing, but various institutes, universities, representative offices of companies, hospitals will move to the new metropolis. The Chinese believe that Beijing, home to 22 million people, has reached its limit of growth. In this respect, the municipal authorities are interested in the case of “New Moscow”. □

“VOROBYEVY GORY”
MSU INNOVATIVE SCIENCE
AND TECHNOLOGY CENTER

INNOVATIONS MAKE LEADERS

The main concept for development of “Vorobyevy Gory” MSU Innovative Science and Technology Center envisions establishing a world-class innovations system at Lomonosov Moscow State University. This system is essential for Russia’s science and technology development, raising R&D investment potential, commercializing research results, greater access of persons and legal entities to participation in promising, commercially compelling research and technology projects.





The project is funded by the City of Moscow and the federal government and is awarded the status of a special legal regime territory.

Total Area
479 000 m²

Land Plot Area
17,5 HA

Employee Headcount
>50 000

9 clusters

- Infotech Cluster
- Geotech Cluster
- Biomed Cluster
- Engineering Cluster
- Nanotech Cluster
- Interdisciplinary Cluster
- Space Cluster
- Education Cluster





Laboratories and Office Premises
19 172 m²

- designed for setting up “clean rooms”, pilot production facilities, assembly lines, testing and certification center
- comfortable site for tech SME businesses and corporate R&D centers

Coworking Space
4880 m²

- Tech entrepreneurship hub for project team, R&D team and startup activities

Support Infrastructure

- Exhibition space, 500 stands – 1080 m²
- Conference halls for 350 and 650 seats – 112 m²
- Restaurants – 1056 m²
- Shopping mall – 964 m²
- Other support infrastructure



Lomonosov Cluster Residents

Companies that successfully passed a selection procedure for allocation of office and lab spaces in Lomonosov Cluster and awarded project participant status

Lomonosov Cluster Residents operate in the following areas:

Medicine and Biotechnologies

11 companies

LFIA test kits, telemedicine, medical equipment Featuring:

Advanced Technologies Center LLC

- A unique technology on the RF market, combining atomic force, capillary and microlens microscopy of living matter

Genotek MSU LLC

- Russia's first genetics laboratory with genome sequencing capabilities
- Cooperation with clinics from more than 70 countries

Unmanned Systems 13 companies

Robotized hardware systems for various applications, unmanned aerial systems, electromobiles. Featuring:

SCAN LLC (GC Geoscan)

- Integrated production cycle for unmanned aerial vehicles



- The world's first company to design 3D site modeling during aerial survey

Agrimax.Agro LLC

- Development and production of unmanned aerial irrigation systems for agricultural applications

Industrial Technologies 13 companies

Air cleaning filters, semiconductor products. Featuring:

UBIC LLC

- Developing products for setup of analysis and situational awareness centers, focusing on big data operations and user behavioral analysis

QVEDO LLC

- Development of an aggregator for selection, reservation and payment for tourist, educational, cultural services, as well as a directory for cultural and historic tourist destinations in Russian regions

Geotech 13 companies

Equipment and software for research, engineering surveys of offshore areas and onshore geological sections for oil and gas industry. Featuring:

Marine Center, LLC

- A Russian market leader in applied comprehensive marine environment studies
- The company has 50% of the Russian market of innovative marine technology developments

Mettlabs LLC (GC "TSS")

- Design and production of packer systems for oil and gas wells
- 2 proprietary integrated plants
- Over 300 products manufactured

Information Technologies

8 companies

Development of software, new communications facilities, platforms and networks. Featuring:

Inwave (Microwave Electronics, LLC)

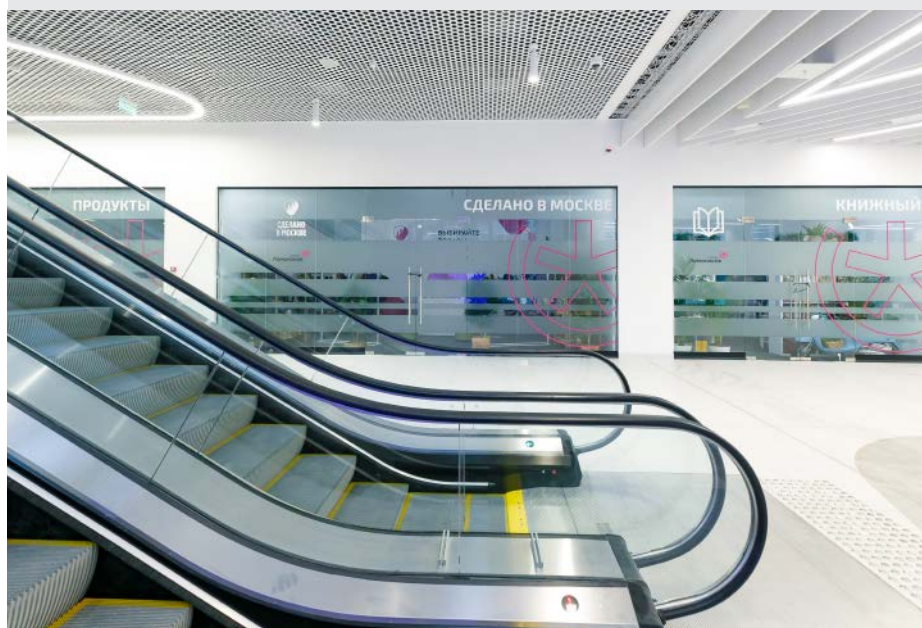
- A tech leader in advanced control and measuring, electronics and telecom equipment • Over 15 R&D projects every year

T8 NTC LLC

- A developer of telecom equipment for 5G backbone and communications networks
- #1 in TechSuccess rating (2020)
- The first and the only domestic company to develop a coherent DWDM system with 100G channel rate.

Service Companies and Project Implementation Players

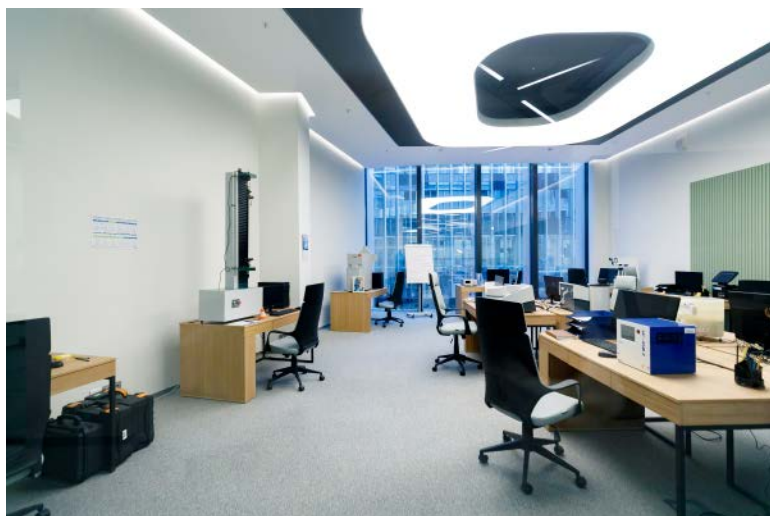
2 companies



Preferences for “Vorobyevy Gory” MSU ISTC Participants

Potential Project Participants

- Corporate spin-offs
- Tech business
- Startups
- Research teams and tech developers
- R&D centers
- Foreign corporate offices



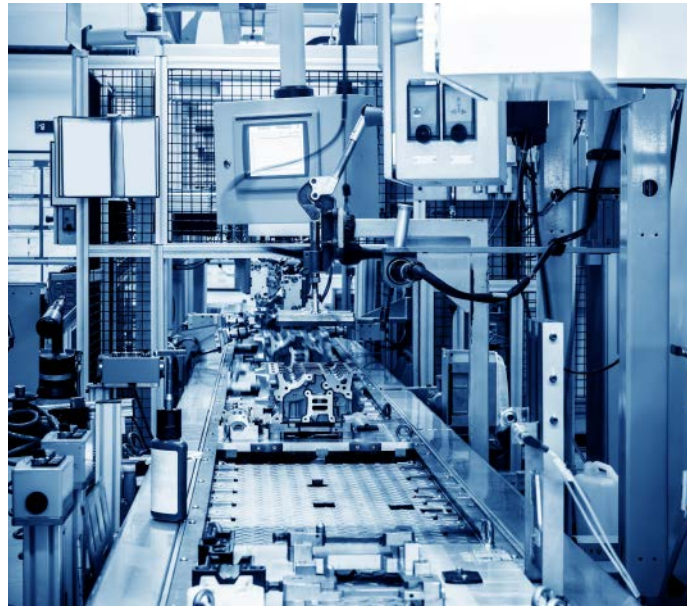
| Preferences | Lomonosov Cluster Residents | No Preferences |
|--------------------------------|---|--|
| Profit Tax | 0% for 10 years | 20% |
| VAT | 0% for finished products for 10 years | 20% |
| Insurance Rates | 15% | 30% |
| Customs Duties | 0% via customs duty refund arrangement | Up to 54 %, depending on imported goods type |
| Foreign national duties | 0 rubles • Work permit • RF Invite • Visa issue/prolongation | Depending on duty type |
| Foreign national work permit | Not Required | Required |
| Educational Activities License | Not Required | Required |



Moscow has become the leader among 10 megacities in the world in terms of industrial production growth rates. This was announced by Vladimir Efimov, Deputy Mayor of Moscow for Economic Policy and Property and Land Relations.

At the end of 2022, the Moscow Industrial Production Index (IPI) increased by 15.1 percent. Thus, the Russian capital was far ahead of cities such as Rio de Janeiro, Beijing, Shanghai, Singapore and Barcelona.

“The index of industrial production in Moscow has been growing since 2017. At the end of 2020, Moscow showed the greatest growth in IPP among the ten largest megacities, and in 2021 it entered the top three, behind Beijing only. The growth rate of Moscow’s industrial production indicates the high demand for the capital’s production facilities, their investment attractiveness, growing demand from the population, and confirms the status of the Russian capital as an advanced manufacturing center,” noted Vladimir Efimov.



The government of the Russian Federation has approved a list of countries whose banks will be able to participate in foreign exchange trading in Russia.

Foreign credit institutions and brokers will be allowed to trade on the Russian foreign exchange market, as well as on the derivatives market.

The list includes more than 30 countries: Azerbaijan, Armenia, Belarus, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan, Algeria, Bangladesh, Bahrain, Brazil, Venezuela, Vietnam, Egypt, India, Indonesia, Iran, Qatar, China, Cuba, Malaysia, Morocco, Mongolia, United Arab Emirates, Oman, Pakistan, Saudi Arabia, Serbia, Thailand, Turkey, South Africa.

The decision is aimed at increasing the efficiency of the mechanism for direct conversion of national currencies and the formation of direct quotations to the ruble to meet the demand of the Russian economy for settlements in national currency.

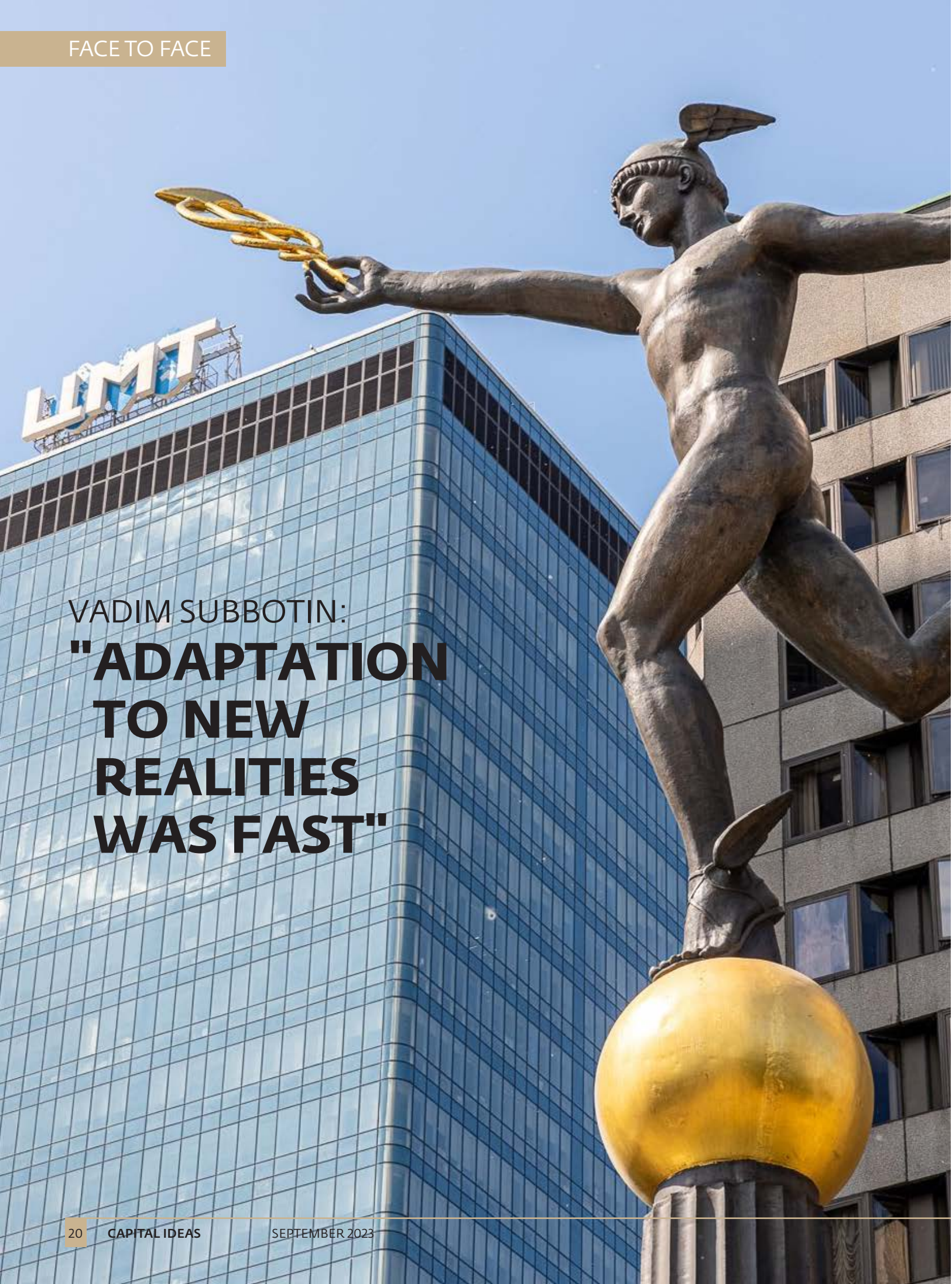
The Ministry of Agriculture of the Russian Federation plans to expand measures of state support for small business organizations from 2024, said Renata Bibarsova, director of the Agency for Rural Development.

According to her, starting next year, another grant will be added for newly created cooperatives.

“For those cooperatives that have been newly created and that currently do not have the funds to start their business, a grant of up to 10 million rubles will be provided. That is, a kind of agricultural startup in cooperation,” Bibarsova noted.

She also said that state support measures remain in place for personal subsidiary plots, individual entrepreneurs and peasant farms, as well as for agricultural organizations that are micro and small businesses.





VADIM SUBBOTIN:
**"ADAPTATION
TO NEW
REALITIES
WAS FAST"**

The Moscow International Trade Center (WTC) maintained its leadership in the market of office, fora and hotel services for many years. This is the place where business life is in full swing: business people conclude crucial deals, establish new liaisons, hold meetings, congresses and other fora. Why is your WTC so attractive for business and what are its hallmarks that distinguish it from the main competitors?

To answer your question briefly, WTC is noted for traditions of high-quality performance when there is no place for minor details – any minute detail is important, plus the uniqueness of the infrastructure and advantageous location.

As you know, the WTC was established with the involvement of the USSR Chamber of Commerce and Industry, and from the very first day of its existence, its daily routine was aimed at fostering most favorable terms and conditions for business development of the country. The WTC complex incorporates all you might possibly need. The most saturated cluster infrastructure, where everything is aggregated under one roof, allows tackling and solving any business issue in a short time.

To be more specific, you can live and work here in the WTC without ever going outside. As a true “city within a city”, the WTC combines offices, a congress center, hotels, a business center that provides a full range of services, cafes and restaurants, fitness clubs, a shopping gallery, banks and much more.

In addition, the WTC is located in the very center of Moscow – right at the junction of business and cultural clusters of the capital, in close proximity to the Moscow City business quarter and to the city center. Our complex is also part of the ecosystem of Moscow. This is a unique wildlife area. The areas of rich greenery around smoothly stream into the Krasnaya Presnya Park and the newly landscaped embankment of the Moskva River.

The WTC is not just a compound. It is an exclusive and self-sufficient “habitat”.

How did you manage to maintain a leading position over the years? What has helped and is helping you to survive under the new challenging circumstances?

Every year we invest about 500 million rubles in the development of the WTC infrastructure in order to meet modern requirements and upgrade the level of services expected by our customers. Hotel rooms are regularly refurbished. Halls and corridors are renovated. Equipment goes through modernization refit. We introduce latest technologies, including energy-saving devices, and it helps improve the ecological footprint. Ventilation systems were reconstructed. The surrounding territory was subject to landscape design upgrade. Only about 20 percent of the old engineering communications of the first stage of the WTC remain so far. WTC is essentially a brand new complex.



Vadim Subbotin

Deputy Director General for Finance and Commerce of the World Trade Center, detailed the WTC status and current affairs under the changed circumstances

The change in the geopolitical situation at the beginning of 2022, the imposition of sanctions, the withdrawal of a significant number of foreign companies from the Russian market, the disconnection of widely used international client and business services, all of these developments called for a prompt search for solutions to restructure business models, as well as to initiate transition to Made in Russia software.

The Board of Directors and the Management Board of the Company took the necessary measures to maximize sustainability and maintain profitability at the earlier planned level. Along with the implementation of the objectives of the long-term WTC development strategy, we switched to quarterly adjustment and approval of benchmarks, reoriented business processes to the domestic market and markets of friendly countries, promptly streamlined marketing policy and advertising promotion of services.

We began to offer a variety of new additional services, expand the client portfolio due to new audience segments, and this fine-tuning tactics enabled us to smoothly adapt to the new business environment.

Due to the imposed sanctions, more than two thousand foreign companies abandoned Russia. In what way did it affect the rental of office space in the WTC?

To date, there are over 570 office tenant companies in the WTC complex, over 10% of the space is rented by foreign companies and representative offices.

Of course, we are facing serious challenges. In the current conditions, we put more emphasis on customized approach and engage each individual client in order to maintain the load and retention of tenants. We respond flexibly to every request of our clients, for example, demand to reduce the rental space, move to other premises and/or correct other rental

deal terms and conditions. We have put on stream regular feedback on client satisfaction with the services provided by the WTC. In order to minimize downtime in the event of the release of offices, we have implemented a special mechanism to promote the vacated areas.

We pay particular attention to the development of digital services, including direct communication with tenants. We are engaged in constant renovation of office spaces and public areas to maintain and create additional comfortable environment for the tenant companies.

As a result, we managed to not only preserve, but also even to increase the average utilization rate of buildings to 97.3% and to boost the average rental rate to 32.5 thousand rubles per square meter per year, and thereby increase revenues from rental activities.

Previously, it was almost impossible to find a “dead season” for a period of just two or three days in the WTC events calendar... In connection with the reduction of international connections, what is the state of play of the forum activities segment?

The termination of direct flights with most Western countries, the restriction of movement of travelers from other parts of the world, as well as apprehension of foreign guests to fall under sanctions did affect the possibility of holding international congresses and forums.

Under the circumstances, we carried out the pre-planned regular events in the agreed modality and compensated for canceled or reduced scale events through additional sales and flexible pricing, including the implementation of the WTC set of services based on the “Congress-Catering-Hotel” formula.

In this regard, customized client engagement by the Congress Center has come to the fore, thus providing clients with the most opportune terms and conditions, which allowed us to



attract new customers, also through advertising campaigns.

In the post-pandemic period, the WTC Congress Center had already refocused on domestic demand and a wider audience. Now, in addition to traditionally large forums and international congresses with the participation of top officials, there are also youth business camps, various trainings dedicated to the art of entrepreneurship and/or aimed at reaching individual maturity as a personality. We record sustainable interest of individual clients and the business community: e.g. corporate IT and pharmaceutical companies, banking and finance institutions, major event-management companies operating on the municipal level. Business events with international participation are in no way uncommon as well.

At the end of last year, for example, we welcomed a top notch international conference “Journey into the world of Artificial Intelligence” or Artificial Intelligence Journey 2022. Recently, WTC hosted the largest industry event within the Eurasian Economic Union common space with the participation of 1,500 experts called the Fifth Eurasian Aerospace Congress 2023.



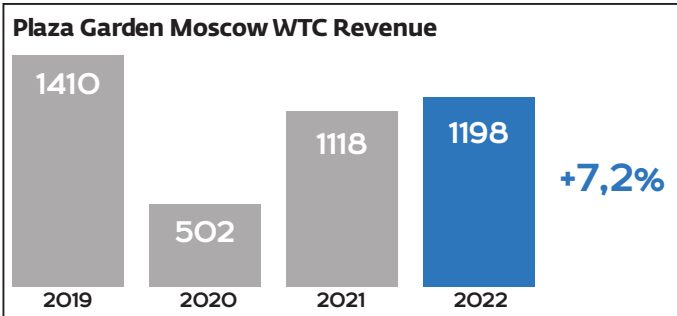


Many hotels faced difficulties when international brands under whose franchises they used to work left the Russian market. How did this affect the activities of your hotels? How smooth was the transition to the new normality?

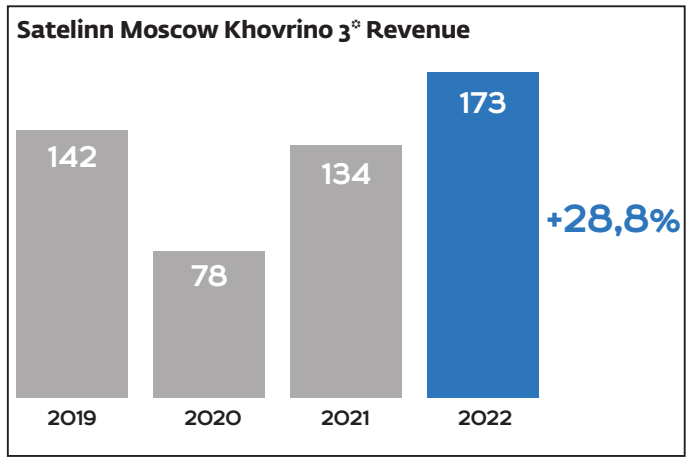
We initially owned and operated our hotels independently, so after the British company IHG Hotels & Resorts left the Russian market, we promptly rebranded the hotels operating under the IHG franchise, and avoided the problems with the restructuring of operational processes that some other chain hotels faced.

The World Trade Center incorporates a cluster of hotels ranging from 3 to 5 stars. We offer our guests a high standard of comfort, regardless of the chosen category of stardom. The cluster includes the largest business hotel in the capital, Plaza Garden Moscow WTC 5* (former Crowne Plaza Moscow WTC hotel) with an impressive number of 727 rooms in the main building and a detached Club building, the “Mezhdunarodnaya” 4* apart-hotel and the Satelinn Moscow Khovrino 3* hotel (former Holiday Inn Express Moscow – Khovrino).

The introduction of innovative marketing and technological solutions allowed us to increase traffic through our own hotel websites, and to retain an extensive database for various segments of individual guests and companies. Moreover, we have expanded interaction with Russian online resources, thereby capitalizing on the opportunity to work through a domestic booking system. As a result, the utilization of the Plaza Garden Moscow WTC hotel last year amounted to more than 57% of the rooms offered for sale, exceeding the indicator of 2021.



Taking into account measures aimed at restructuring all the segments of our hotel chain, as well as retaining and attracting organizers of large and small local events, in 2022, the average income per room exceeded the level of the previ-



ous year by 20%.

The main business clients of the Satelinn Moscow Khovrino Hotel last year were individual guests; their share was 70% while about 20% accounted for corporate groups and about 8% for sports groups. According to the results of last year, the occupancy of rooms was 65.9% compared to 62% in 2021, and the average price per room went up by 23% compared to 2021.

What measures are you undertaking today to increase the workload and attract new customers?



According to our assessment, at the beginning of 2023 there was a positive dynamics of business and tourism activity, both in the domestic market and in some international destinations. Due to close business ties with the Project Office for the Development of Tourism and Hospitality in Moscow, the Plaza Garden Moscow WTC Hotel has carried out a number of offline and online business missions in the Middle East and Asia, as well as to several regions of the Russian Federation.

We managed to attract key events to the WTC site and provide managerial support to them: the Buying Business Travel Summer Fest, which brought together over 400 industry professionals and was hailed as the largest profile event of the Business Travel Community; the UTS Time of Summer attended by over 50 large corporate event customers. We hold business breakfasts for regional agencies on a regular basis. We continue to develop new services: our own loyalty program “WTC-Bonus” and the mobile application “WTC Moscow” have been launched. In addition, the Hotbot service and many other services have been introduced to sell extra hotel services and improve direct communication with guests.

Our main task, as we see it, is to do everything in our power to provide our customers, partners and visitors with the highest level of services, ensuring comfort and quality. CI

AI Bubbles

Yekaterina Borisova

PhD in History,
SRF of Institute of
Oriental Studies
of the Russian
Academy
of Sciences



Modern global economy is developing under its own laws. Periods of growth sooner or later lead to overheating, financial market “bubbles” which “burst” later on. The classic bubble for the technology sphere was the “dotcom bubble” which burst in early 2000s and caused a major NASDAQ index crash. At the time, stock of the companies that proposed using the Internet for making profits became overpriced. A lot of funds, ready to cash in on the hype, popped up and speculated on expectations. Interest in their stock was supported by faith in a transition to a “new economy”, but investments into tech company stock failed due to inefficiency of most startup business models and the subsequent wave of bankruptcies. Then there were the bubbles of social media (2010), startups (2012) and blockchain (2018).

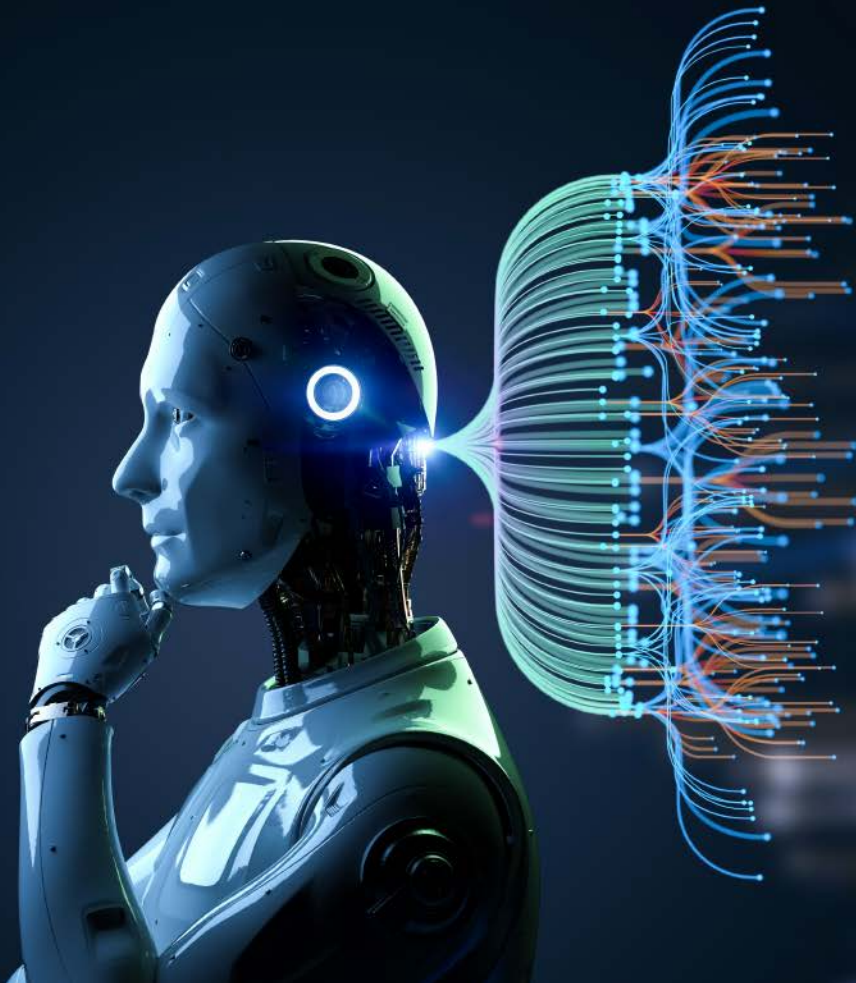
Today we are observing similar excitement around a new technology wave – neural networks and related artificial intelligence (AI). Public expectations for these technologies, heated up by the next media frenzy, are so high that they are causing not only excitement with the big breakthrough, but fear of their future; a future where humans would no longer be useful, excluding those rare individuals who would service machines. Now AI is actively used in many areas: from customer communications to market forecasts and diagnosing. The fear over the future of the mankind due to development of neural networks is so strong that in March 2023 a number of global corporations signed a petition, initiated by Tesla CEO Elon Musk and Apple cofounder Steve Vozniak, to suspend further developments in this area. “Looking out from inside the bubble” distorts perception of the existing reality.

ChatGPT (Generative Pre-Trained Transformer) became a sign of a major breakthrough in artificial intelligence devel-

opment, it can not only be interesting to talk to, but can, for example, write software code, including viruses, if requested by humans. The emergence of ChatGPT by OpenAI two years ago forced most IT corporations to go into development of a similar tool – large language models, though Transformers (a new neural network architecture model) appeared back in 2017, and generative models had been created much earlier. In Russia proprietary AI-based chat bots are now being tested, for instance, by Sber, Yandex, MTS. However, one should always be aware that a catch-up strategy bears risks of escalating digital colonization on the back of copy and paste actions and use of someone else’s technologies, even when these are open source.

Essentially, now the race is on to avoid lagging behind progress. It is clear that anything new and progressive sparks intense interest of common folk and creates a buzz in the tech community. Many are eager to make money off of the hype, but few will survive this contest for investments. Some would go bust due to a flawed business model, and some would fail trying to keep up with progress and would drag behind, just as NOKIA in its time had lost its mobile phone market leadership, overlooking emergence of new smartphone technologies; and some developments would be just useless. For instance, a few years earlier, following explosive interest in it, blockchain had lost its appeal for most companies and receded into a niche, where it would be actually feasible to use.

In the current chat bot situation everyone is trying to catch up with the leader, OpenAI, but no one has yet announced of a radically new idea or discovered any new algorithm operations, or set any new challenges in neural network and artificial intelligence development. At this stage we are only ob-



servicing frantic saturation of the chat bot market with generic solutions. The only difference between these products is in the volume of datasets fed into a specific neural network for its learning. Therefore, in the near future we will see a broad spectrum of offers and the weakest players will be weeded out. Some would take off on the hype, and some would perish.


The open letter by Elon Musk and Steve Vozniak, who played on public fears, is actually not about them caring for the fate of the humankind, but about an attempt to slow down their competitors, who deftly got ahead of Tesla and Apple in the technology race. No one wants to suffer the same fate as NOKIA. In 2014 Elon Musk, under the same pretense of saving the mankind, tried to stop the acquisition by Google of DeepMind, a company developing artificial intelligence, explaining his actions by the need to deny Larry Page (the head of Alphabet parent company) control of the future of AI. In fact, the head of Tesla had earlier tried to buy DeepMind himself, but failed.

The fuss over AI for now leads not only to anticipated fears, but to overestimated capabilities of related technologies. So, for example, GPT-4 capabilities for writing informative text are currently overblown. My chat bot inquiry on the subject of this article brought me a text that featured no new information whatsoever. A comparison of the "dotcom bubble" and the current heightened interest in artificial intelligence made the machine produce the following statement: "Artificial intelligence has enormous potential for improving our life and resolving challenging tasks. However, just like in the case with any other technology revolution, there is a risk that the hype about AI may lead to a "bubble", which will ultimately burst. To prevent this from happening, investors, developers and the society in general have to be better informed,

realistic and responsible in their actions and decisions. This is the only way to secure sustainable and continuous development of the artificial intelligence sphere".

It sounds nice, coherent and logical, but the text has no value whatsoever. It is similar to the development of the research paper by a student who used this software to write his thesis and got a "C" grade for it. There is logic, but novelty is lacking. Putting popular network information together into a common structure won't generate new knowledge and won't find out the truth.

At the current stage, further steps on the trail blazed by OpenAI lead to a dead end of development. Anything that could be squeezed from the Generative Pre-Trained Transformer technology, has been obtained. Work over GPT-5 has been suspended, and I suspect, not only for the reason of the open letter by Elon Musk and the disgruntled public, but also due to the reason, described above: all tasks, which could have been resolved under the emerged technology, have already been resolved. For further development, we need to wait for a next breakthrough. What has already been created would find its way into broad use for text processing and even into designing spares, drugs and clothes. At the same time there will be explosive growth of various fakes, including history and science fakes.

However, no new development leaps in neural network development should be expected in the near future, until the current phase is milked dry; the frenzy will abate, the market will be saturated, huge budgets will be spent, inefficient investments will dwindle away ... Things will calm down until emergence of a new layer of algorithms which would resolve next tasks. 



Development of advanced logistics technologies

In the XXI century Russia has claimed a prominent position at the global market of transportation and logistics services, using its location at the crossroads of major international Eurasian transport corridors. Though, traditionally Russia was considered lagging behind in services sectors, including logistics (supported by international expert estimates, for instance, the Logistics Performance Index by the World Bank), nevertheless, over the latest decade there has been a continuous increase in logistics services quality. These improvements are primarily related to active development of logistics infrastructure, construction of transportation and logistics centers, emergence of highly professional logistics operators in the country.

Leading players of the Russian logistics industry, operating under pressure from a whole range of divergent factors in supply chains (sanctions pressure, exit of foreign companies, pricing environment changes, excess demand), are forecasting rising competition at the background of general economic growth and are actively looking for ways to lay down strategic groundwork for development.

Achievement of these objectives is facilitated by the current level of development of digital technologies, used in Russian logistics: these are various automated warehousing and transport logistics management systems, enabling optimization of available resources, and tools focusing on minimization of manual labor and reduction of "human factor" impact risks, and technologies, accelerating and/or reducing cost of freight shipments, and also solutions contributing to decreasing negative environmental impact of logistics. The most cutting-edge logistics technologies, actively developed today in

Russia, feature autonomous/unmanned transportation systems, digital control systems for transport network throughput, AI technologies in shipping and warehousing logistics, technologies for sustainable and secure electronic document flow, "green" transport.

So, for example, research and operational testing of unmanned technologies in automotive logistics are currently running in 38 regions of the RF, which have adopted a special legal framework for this purpose. This year an All-Russia technology competition was launched for unmanned solutions to transport freight for up to 60 km, which is the distance mostly used in manufacturing enterprise logistics and in urban environment deliveries. In 2024 it is planned to commission the first federal unmanned logistics corridor (based on M-11 "Neva" Moscow – Saint-Petersburg freeway). Development of automotive freight transportation envisions implementation of electric-powered transport solutions, hydrogen-powered options are ongoing.

Air freight logistics also focuses on search and implementation of unmanned technologies, which is especially essential for areas with limited road networks, for example, for the Extreme North regions. "The concept for integration of unmanned aircraft into the national airspace of the RF", adopted by the Government of the RF in 2021, expedited launch of the "Unmanned Air Freight Delivery" federal project. Under this initiative, private businesses together with tech startups and state corporations are searching for optimal solutions for air delivery of cargos weighing over 50 kg for distances of at least 1000 km.

The maritime logistics sector is actively researching tech-

nologies for unmanned ship navigation, control and seaport management. Since 2020, the Ministry of Industry and Trade has been conducting a pilot autonomous ship project, implementing routine logistics tasks involving tankers, bulkers and other types of cargo ships. Vladivostok has implemented a “smart seaport” concept, which is currently operated in seaports of the Far East. Development of this technology enabled launch of blockchain-based smart contracts for Russian domestic “seaport-railroad” freight transportation in 2022.

Blockchain- and smart contract-based electronic document flow is being developed by the Russian Railways as well, the corporation is researching latest methods to raise contract security, using quantum computing. Other breakthrough solutions at the Russian Railways feature the “Virtual Coupling” technology for freight traffic train separation, increasing throughput for busy railway network sections via reduction of headway between consecutive freight trains down to 4-8 minutes. Currently the system is installed at 360 locomotives, operating in the eastern part of the country. Moreover, in 2021 Russian Railways ran a pilot project for AI use in operations of switch engines at freight switchyards. Results of the pilot enabled planning of AI implementation in railway freight traffic (and passenger transportation – starting from 2024). And in 2026 the Ministry of Transport has plans for the railway industry to start full-scale production of LNG-powered freight locomotives and high-speed mainline trains with maximum speed of up to 400 km/h.

The most promising and successful projects in the warehousing logistics sector are warehousing robotization projects, developed both by retailers (especially by major Russian marketplaces), and relevant equipment manufacturers. However, for now future profits at the current development level of these technologies could only be expected from focusing on sales of goods, and not from warehousing management.

It should not be left unmentioned that the large-scale digitalization process of Russian customs logistics has seen significant progress and has been demonstrating solid deliverables over the latest few years; so, for instance, in 2022 about 80% of customs bills were issued with the use of automatic registration and automatic clearance, requiring, on the average, three and five minutes correspondingly. In the near term it is expected that in this area AI and digital systems for verification and certification of goods will be implemented, and later on electronic navigation seals with cargo location and integrity tracking capability will go into operation in the EAEU.

Therefore, changes, affecting sustainability of global and national supply chains, are becoming a challenge for the Russian business and at the same time a driver for active development of advanced logistics technologies in Russia. Our future lies with further digitalization, and only time will tell, which road will be taken by Russian logistics.

*Leonid Shurilinov,
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