Hidden Champions of Russia

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Overview

Official name:	Russian Federation
Type of government:	Federation
Population in 2011:	142,960,000
Land area:	16,376,870 km^2

History

1917/1922	The Soviets seize control of the government in the October Revolution in 1917 Nationalization of land and all businesses.
1922	(December) The Union of the Soviet Socialist Republics (USSR) is set up by the Russian Communist Party.
1929/1939	A period of massive industrialization. Joseph Stalin assumes full-control over Russian society.
1941/1945	World War II, in which the Soviet Union loses around 27 million people.
1945/1989	Cold War period, in which the Soviet Union dominates the Warsaw Pact and faces off the United States in a number of conflicts, including the Korean War and the Vietnam War.

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1989/1991	The breakup of the Soviet Union leads to the restoration of the Baltic republics. The Georgian SSR and the Moldavian SSR start seeking greater autonomy. End of the USSR and formation of the Russian Federation in December 1991.
1993	(Autumn) Yeltsin's dispute with parliament resolved by bringing tanks to the Russian White House. Subsequently, Yeltsin imposes the current Russian constitution with strong presidential powers.
1994/1998	Economic reforms consolidate a semi-criminal oligarchy and result in a deep depression and financial crash in 1998.
2000/2008	Vladimir Putin appointed Prime Minister. Under his governance Russia's economic development surpasses that of most other resource-rich countries.

1 Introduction: Context

The Russian Federation is the largest country by territory. It is located in Europe and Asia and covers eight time zones. The Urals—the oldest mountains in the world—are situated on Russia's territory. They are rich in natural resources—especially copper, iron ore, titanium, and semiprecious stones. The Ural Mountains divide Russia into its European and Asian parts.

Russia also has Lake Baikal, located in the south part of Siberia. It is the largest freshwater reservoir and the deepest lake in the world. Russia has access to different seas and oceans: the Baltic Sea, the Black Sea, the Arctic Ocean, and the Pacific Ocean.

This geographical position has provided Russia a wide variety of natural resources: gas, oil, strategic minerals, timber, fish, sea-food, and more. These resources give Russia's economy an important competitive advantage in the global economic system.

The different climate zones facilitate the development of agriculture. Russia is one of the world's largest exporters of grain, sugar beets, sunflower seeds, meat, and dairy products.

Russia has developed different industry sectors, such as automobiles and truck production, agricultural equipment, advanced aircraft and helicopter production, aerospace, mining and extractive industry, pharmaceutical production, medical and scientific instruments production, construction materials, and more.

Russia has a population around 143 million (World Bank, April 2011), represented by different nationalities and cultures. Most Russians live in over 1,000 major cities, 16 of which have a metropolitan population of more than one million. The most developed economic regions of Russia are located in the centre of the country (Moscow and the Moscow region), Saint-Petersburg, and the Ural Mountains (Yekaterinburg, Perm, Cheliabinsk). The location of oil and gas production is concentrated in Eastern Siberia, Tatarstan, Sakhalin Iceland (Far East), and the Pacific Ocean. Other economically developed regions are located in the

Volga river region (Samara, Saratov), and in the south of Russia (Rostov on Don, Krasnodar).

Before the communist revolution in 1917, Russia was one of the largest economies in the world. It had passed through an industrial revolution, including the development of new plants and factories for the extraction of metal and other natural resources, textile, and heavy industry. The Revolution of 1917, the First World War and the Civil War, had a negative impact on the economic development of the country. After the revolution, the Russian government and the Communist Party encouraged the development of heavy industries, transport, machinery, aviation, and airspace travel, rather than the production of consumer products. The Soviet period played an important role in the development of the education system in the Soviet Union and Russia. The government was primarily interested in providing fundamental education in physics, mathematics, chemistry, biology, and foreign languages and economics, and it created a very good system to educate engineers, mathematicians, and other science specialists.[1]

During Soviet times, the state was the major stakeholder of companies. It set the goals and centrally distributed its resources to reach those goals. With no market competition, all the evaluation criteria, such as effectiveness and efficiency, were narrowly used only as a tool of control for the implementation of centralized plans. Being separated from the rest of the world, companies were limited in their development by the market of the Soviet bloc countries, which had an insignificant and controlled access to other markets. This resulted in lack of innovation except in a few typically non-commercial entities that were strategic for the state-based industries (e.g. military, aerospace, etc.) and if any innovations occurred in other areas, conditions for their successful commercialization were often missing.

Since 1990 Russia has passed from a centrally-planned and isolated economic structure to a market-oriented economy. These changes were quite dramatic for the country and its economic system. Their effect was exacerbated by the collapse of the Soviet Union and the disintegration of economic and business relationships with former socialists republics, which became independent states at the same time.

The peaceful downfall of the USSR and the collapse of the Soviet state-planned economy during the perestroika period[2] ushered in a decade of deindustrialization and sharp economic decline, followed by 2 decades of privatization and consolidation of property. At the very start of the transition period, the market value of assets could not be reasonably determined and it has taken about 20 years for major companies to reach current market value levels. Thus, the strategies of these companies included acquisitions and enlargement of market share but not competiveness. Efficiency, innovation, and long-term development were not

[1] This fact is important for our project because the majority of leaders of Hidden Champions in Russia were educated at leading Russian universities with long histories of educational programmes.

[2] *Perestroika* is the period from 1986 to 1991, initiated by Mikhail Gorbachev, leader of Soviet Union Communist Party. Its main aim was to renovate and rebuild the economic, political, and social mechanism of the Soviet Union.

priorities. Smaller companies were experiencing other challenges. Survival issues were of great importance in the first stage, followed by profit maximization later on, but again there was a lack of a long-term strategic perspective.

The insecure environment of the transition period was characterized by continuously changing legislation, a lack of an appropriate taxation system, the dominating role of state regulators, as well as high criminalization of the economy. To a great extent this led to an overall lack of transparency at all levels, involving very modest financial disclosures and corporate governance, if any, and an unwillingness to engage in PR or share any company information with society. This was done in order to reduce the risks of unfriendly actions by different economic and political subjects.

Since the 1990s, the new market orientation and reform of the Russian economy has led to the privatization of different production plants. This period gave the Russian economy an opportunity to compete globally in the commodity sector: oil and gas, timber, energy, aluminium, titanium and electric energy.[3]

Luckily, the economy bounced back quickly from the 1998 crisis and enjoyed a decade of sustained growth, averaging 7 % annually. The economy prospered due to several factors: a devalued ruble, stabilization of the institutional environment (achieved through a set of economic reforms covering taxation, the banking sector, the labour market, and real estate), tight fiscal policy, and favourable commodity prices. Household consumption and fixed capital investments grew by 10 % annually and thus fuelled the growth of the economy. Last but not least, inflation and exchange rates stabilized.

The 2008–2009 global economic crises opened a new period of economic development in Russia. The Central Bank of the Russian Federation holds 200 billion US dollars to protect the liquidity and financial system of the country. This helped the Russian economy return to growth at the beginning of 2010.

In 2010, The Russian Federation was ranked 123th out of 183 economies according to the World Bank project *Doing Business*. At present Russia is among the largest developing emerging economies in the world with its GDP per capita at PPP reaching 15,900 US dollars in 2010. The average growth rate for the last 10 years has been around 6 %. In 2010, Russia exported products worth a total of 376.7 billion US dollars,[4] including natural resources such as oil and petroleum products, natural gas, timber and timber products, metals, and chemicals. Most Russian foreign trade is done with Europe, the CIS, China, and Japan. To sum up: in the global division of labour Russia has a clear profile—it specializes and competes in the export of natural resources (Exhibit 1).

The potential of Russia's hidden champions (HCs) is determined by three main factors: (1) a long period of planned Soviet economy, resulting in a lack of involvement in the world market, absence of competition, and no efficiency criteria;

[3] Facts and figures about the Russian economy from the official site of Ministry of Economic Development http://www.economy.gov.ru

[4] Data from http://www.vniki.ru/site

Exhibit 1 Core economic indicators for Russia

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GDP per capita (current $US)	1,338.99	1,775.14	2,100.74	2,375.16	2,976.14	4,108.57	5,337.07	6,946.88	9,146.42	11,700.22	8,615.66	10,481.37	13,089.34
GDP per capita growth (annual %)	6.83	10.00	5.35	5.21	7.82	7.73	6.90	8.65	8.84	5.36	−7.79	4.33	4.33
Long-term unemployment (% of total unemployment	47.00	46.20	39.20	38.80	37.20	38.50	38.50	41.70	40.60	35.20			
Foreign direct investment, net inflows (% of GDP)	1.69	1.05	0.90	1.00	1.85	2.61	1.69	3.00	4.24	4.52	2.99	2.91	2.85
GDP (current $US m)	195,905.77	259,708.50	306,602.67	345,110.44	430,347.77	591,016.69	764,000.90	989,930.54	1,299,705.76	1,660,846.39	1,222,648.13	1,487,515.61	1,857,769.68
Exports of goods and services (current $US m)	84,671.00	114,429.43	113,116.22	121,649.12	151,697.51	203,415.48	268,951.74	333,908.28	392,044.03	520,003.70	341,584.67	445,512.96	576,863.49
Exports of goods and services (% of GDP)	43.22	44.06	36.89	35.25	35.25	34.42	35.20	33.73	30.16	31.31	27.94	29.95	31.05
Merchandise exports (current $US m)	75,665.00	105,565.00	101,884.00	107,301.00	135,929.00	183,207.00	243,798.00	303,551.00	354,403.00	471,606.00	303,388.00	400,419.00	521,968.00

(continued)

Exhibit 1 (continued)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Merchandise exports to high-income economies (% of total merchandise exports)	65.93	68.14	70.20	64.27	63.80	67.49	66.75	68.40	64.28	64.31	54.58	60.32	n/a
Merchandise exports to developing economies in Europe & Central Asia (% of total merchandise exports)	21.15	21.56	18.58	21.34	23.04	19.46	21.61	20.47	24.46	24.81	15.79	14.13	
Ores and metals exports (% of merchandise exports)	11.71	9.29	7.97	7.39	6.92	7.67	6.66	8.20	8.33	5.57	5.73	5.58	5.28
Agricultural raw materials exports (% of merchandise exports)	3.58	3.09	3.12	3.38	3.23	3.01	2.79	2.62	2.85	2.07	2.30	2.07	2.08
Food exports (% of merchandise exports)	1.01	1.25	1.44	2.03	2.00	1.35	1.60	1.60	2.33	1.78	3.24	2.00	2.35

Fuel exports (% of merchandise exports)	41.76	50.58	51.80	52.47	54.49	54.69	61.77	48.72	61.45	65.66	66.69	64.36	59.03
Manufactures exports (% of merchandise exports)	24.72	23.59	23.18	22.82	21.69	22.39	18.75	16.50	16.96	16.74	17.21	14.67	14.29
High-technology exports (% of manufactured exports)	12.34	16.07	14.04	19.16	18.98	12.92	8.44	7.78	6.88	6.47	9.23	8.85	

Source: World Bank (2013)

(2) a specific transition period from the early 1990s to the present, involving a dramatic shift to an oligarchic economy with a significant role of the state, high barriers to setting up a company, and high risks to small-to-medium enterprises (SMEs), such as bureaucracy, corruption, a complicated taxation system, and a lack of transparency; and (3) a national economy based to a very large extent on natural resources, with a relatively small number of companies accounting for a large portion of the total market capitalization. As a consequence, large corporations tightly connected to the state (through ownership stakes as well as other power structures, such as politics) dominate key Russian export sectors. The majority of these enterprises operate in national strategic industries: energy and natural resources; defence, and aviation. Public giants, such as Gazprom, Rosneft, TNK-BP, Nornikel, NLMK, Transneft and Rusal, are largely state-controlled corporations. Despite its significant exports of military equipment and nuclear power plants Russia remains primarily an exporter of commodities.

Another key factor in the Russian economy is the growing domestic consumption resulting in growth in construction, retail, telecommunications, HORECA, and transport.[5] In general, global producers have proved more competitive in consumer markets than Russian firms, but Russian companies have done better in construction, retail, and services.

Russia has 40 million regular Internet users and the Internet is the fastest growing sales channel. The decade-long consumption boom also boosted medium-sized and large importers of electronics, home appliances, cosmetics, and clothes, and attracted most of the world's largest corporations in these sectors. The world's leading car-makers, and Russia's automotive industry in general, also benefited from the growth of the Russian middle class (Skorobogatykh 2011).

To sum up: the overall structure of the Russian economy is defined by large corporations exporting raw materials and metals, as well as importers of consumer goods and global companies in the fast-moving consumer goods sector. Large and middle-sized national companies have grown in the construction and retail sectors. Several infrastructural quasi-monopolies are maintained in railway transport, post, and banking. By contrast, the share of SMEs is by all estimates very low, accounting for 15 % of GDP and employing only 20 % of the total workforce.

For this research project, 29 Russian companies were identified and interviewed. The majority of production, manufacturing, and scientific companies are located in the central metropolitan cities—Moscow and Saint Petersburg. This situation was inherited from the Soviet period, or even before, when most of the plants and factories were located closer to the human resources and higher education institutions. Of the 29 HCs, five were selected as case studies because of the originality of their products, successful market strategies, strong presence on

[5] Domestic consumption steadily grew in the 2000s as the average disposable income doubled during the last decade. However, disposable income grew faster than productivity and pensions and salaries in the civil service were significantly increased, which hit the economy like a boomerang in the following years.

national and international markets, innovative approach to R&D and production, ecology protection, sustainable development, and development of talent. These are summarized in Exhibit 2. Numbers related to revenues and employees were difficult to get because of the prevalence of a business culture of low transparency in Russia. Still, the five cases described in greater detail in the next section allow the reader to get a good understanding of the organizational behaviour of Russian HCs. All of them are strong champions with market leadership, at least at the continental level.

2 Five Case Studies[6]

2.1 Luxoft[7]

Overview

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Company Information

Industry:	Production and sale of unique IT and software solutions for banking services and automotive manufacturers
Year of establishment:	1995
Sales revenue in 2010:	€143 million
Sales revenue in 2000:	n/a
Average number employees in 2010:	4,300
Brain(s) behind the company:	Dmitry Loschinin

[6] The authors would like to thank for their contribution and help: Ekaterina Okhmatovskaya—student at Plekhanov Graduate School (International Marketing Management program), and Daria Barillo—4th year student (Bachelor level) at the Marketing Department of Plekhanov Russian University of Economics. They collected secondary data about HCs in Russia, organized interviews with Russian companies identified as HCs, and participated in some interviews. We also would like to thank Pavel Lebedev (MBA, consultant, Academy of National Economy, Moscow, Russia), and Timur Atnashev (Academy of National Economy, coordinator of IMTA alumni in Russia) who helped build Russia's HC database and collect some facts about the development of Russia's economy at the very beginning of the project.

[7] http://www.luxoft.ru/

Exhibit 2 Russian hidden champions

Name	Market leadership definition	Revenues 2010 (in M €)
ABBY	One of the leaders in linguistic and translation software in the world	36
Acron	Leading manufacturer of mineral fertilizers, organic, and inorganic chemistry on CIS markets, China, India	
Bask	Production of innovative sports and casual clothes. Company has leading position in Russia, CIS, and North European markets before economic recession in 2008. Now they are trying to come back to position	11.5
Grishko Ltd	Leading producer of ballet and dance shoes with over 30 % of global market share	
Isotope[a]	Product for reducing of radiological threats	
IstraSoft	Leader in computer technology and programs for education in Russia, in CIS, In Europe	74
JSC Chelyabinsk Zinc Plant	2 % of global market share in Zink production (plus leading position in implementing new system for ecology protection and sustainable development)	
Kaspersky Lab	Among the top four producers of anti-virus software in the world	282
Luxoft	Main supplier of IT solutions and services for banking industry, and automotive industry (production of infotainment software for drivers) with 24.5 % of world market	204
Materia Medica Holding	Sixth place in sales volumes in production of medicine for prevention of flu in CIS countries (Russia, Kazakhstan, Ukraine, Belorussia)	
Moscow ship-building and ship-repair factory	In 2009 produced 5 snow-white yachts of ice class for Moscow-river cruise of premium class (Radisson Yachts cruise). Leading position in Russia and CIS in motor yachts for cruise and for private use	
Nanotechnology MDT	European leadership in production of Zond Microscopes with 16 % of the global market share	
Novikov Group	Market leadership in hospitality business in Russia	80.5
NTO IRE-Polus (Photonics)[b]	Leading producer of fibre lasers in the world (80 % of global market share)	
Parallels, Inc	Leader in virtualization and automation software (cloud software) and calculus in the world	74
Petrovaksfarm	Leading position in Russia and CIS in immune-modulators medicine	
Pharmstandard	One of the leading producers of original medicals in Russian, and CIS markets	
Rosatom	Uranium production	

(continued)

Exhibit 2 (continued)

Name	Market leadership definition	Revenues 2010 (in M €)
Roshimzaschita	Leading manufacturer of protection frames for protection of the persons working in harmful and life-threatening conditions (e.g., technological accidents, terrorist attracts. . .) in Russia, CIS, Europe	
Russian Helikopters	One of leading manufacturers of helicopters in the world with 13.5 % of global market share	18.45
Saranskkabel	Leading producer of optical and other cables in Russian and CIS markets	
Sitronics	IT, telecom solutions, microelectronics	
SKIF-M	Leading producer of modern mills for aerospace industry in the world	
Technonikol	The first in Europe in production of roofing membranes	
Transas	20 % of world market of system for safety navigation in aviation	250
Tyumen Accumulator Plant Ltd	Leading manufacturer of lead-acid starter, rechargeable batteries for diesel locomotives, traction batteries, lead stationary batteries in Russia, CIS, Mongolia, North China	
"VEMZ" Vladimirskiy Electromotive Plant	Leading position in Russia and CIS in manufacturing of induction (asynchronous) motors	
VSMPO-AVISMA Corporation	World # 1 titanium producer, supplier # 1 for Boeing and Airbus Corporations	
Yandex	Leader in search engine and internet portal for Russian speaking countries	206

[a]Isotope was presented with a Russian State Award (on 12-th of June 2010), and an award was given to the company director by President Dmitry Medvedev in Kremlin Palace
[b]CEO and President of this company professor Valentine Gapontsev came into business when he was over 50 y.o. and in 2011 he was ranked among 200 Russian billionaires in Forbes Journal, and in June 2011 he was appointed the Russian State Award, which was given to him by President D. Medvedev in Kremlin
Source: Authors of the chapter

2.1.1 Nature of Market Leadership

Luxoft is a world leader in the production of customized software for banking services, automobile infotainment and other purposes.

2.1.2 Nature of Competitive Advantage

Luxoft provides superior ICT software and services solutions and is continuously improving through state-of-the-art technological projects for the most demanding and technically advanced sectors of the economy, most commonly for multinationals with a significant business presence in Russia. Its key clients are from the automotive sector, for which Luxoft is producing software solutions

related to communications, infotainment, in-car access to online services, messaging, social networking, and multimedia. An even greater strategic role for Luxoft's long-term development is driven by the aerospace industry. The company is developing a whole range of services ranging from customer support and supply chain management to service, engineering and manufacturing data distribution.

2.1.3 Core Lessons Learned on the Path to Business Success

1. Gain access to technological frontiers by operating in the most technologically advanced industries, such as the aero- and airspace industry. By spreading these technologies to other industries, create value for society and yourself.
2. Build your global expansion strategy on professional networks and communities of practice. Try to position yourself centrally; such networks can serve as a door to new strategic partners as well as help leverage your brand and reputation globally. Last but not least, this will help you gain access to information and knowledge relevant to your market and business in the future.
3. Invest in talent development and the promotion of well-educated employees. Build close ties with the best universities, which will channel potential to you. This is especially important in the ICT sector, where development of programming knowledge is an ever-lasting process.

2.1.4 Luxoft: Hidden Champion

Luxoft was established in 1995 as an organizational department responsible for the development of novel ICT solutions for Information Business Systems (IBS), the largest Russian IT company. To focus on the growing market for offshore software services in the US and Europe, a development centre was incorporated and named Luxoft in April 2000.

Company founder Dmitry Loschinin, started work as a software engineer in the late 1980s after he graduated from the Moscow State University with a diploma in mathematics and cybernetics. His background in programming and mathematics was later upgraded in an executive programme at the Wharton Business School, University of Pennsylvania. Before Luxoft, Dmitry acquired managerial experience at leading multinationals such as KED GmbH, MCP GmbH and IBM. With his business experience and mathematical knowledge, he soon successfully set up the business model of the innovative ICT Company.

At first, the company focused on ICT software and services solutions for the most demanding and technically advanced sectors of the economy. To satisfy the clients' demands, Luxoft's ICT products offered state-of-the-art software platforms, customized solutions, and professional services. Initially Dmitry based the company in Moscow, from where he supplied global industry leaders. After the relationships with them had developed sufficiently, he embarked on an international expansion, opening developing centres and representative offices in other countries. Luxoft has international offices and development centres in Russia, Vietnam, Poland, Germany, North America, the UK, Ukraine, and Romania.

Dmitry is a world-class expert in outsourcing; he is certified as an outsourcing professional and is a member of the Outsourcing Hall of Fame. He also plays an

impactful role in the International Association of Outsourcing Professionals (IAOP). This network helped Dmitry strengthen the global reach of his company. Luxoft is nowadays ranked as number one in Central and Eastern Europe in the area of high technology software production and offshore software services,[8] especially in the domain of IT-services in outsourcing.[9] The company makes good use of co-operation by being a partner to many global and national leaders in the ICT industry.

Luxoft's key clients are Russian companies and multinationals with a significant business presence in Russia. Especially important are clients from the automotive sector. For this industry Luxoft is producing software intensive technologies, including communications, infotainment, in-car access to online services, messaging and social networking, wireless communications and multimedia. Clients from the aerospace industry play an even greater role, especially for new product development. To further transform its own technological capabilities, Luxoft offers aviation companies a whole range of services, including customer support, supply chain management, service, engineering, and manufacturing data distribution. Luxoft delves into the problems and challenges of its clients so as to create the solution of tomorrow.

Customer diversification and close customer relationships have been the basis of company growth since the beginning. Customer partnership is based on a culture of engineering excellence, innovation, and deep domain expertise. Over the years, the company developed close partnerships with firms in a diverse set of industries: banking and finance, telecommunications, automotive, manufacturing, aerospace, energy and utilities, computer software, and media. Luxoft has worked with Deutsche Bank, UBS, the New York Media Group, Vympelcom, Porsche, BMW, Mercedes, Boeing, IBM, Harman, Avaya, Alstom, and Sabre. A very important contribution to its customers is Luxoft's experience with many industries. Basically, Luxoft is a repository of all possible ICT solutions. It can extract the best of them for the client's problem at any moment.

The core of the company's success so far has been its commitment to ICT talents. To secure an inflow of the best talent, Luxoft has built strong ties with leading local colleges and universities in Eastern Europe and South East Asia. By providing a range of scholarships and internships, Luxoft has created opportunities for gifted IT students to launch their careers at that company. At the same time, this gives Luxoft an opportunity to assess their capabilities before employing them. Among the 4,500 employees, more than 80 % have a master- level education, and the majority have years of experience in ICT and computer engineering.

[8] An offshore software service is provision of software development services by an external supplier positioned in a country that is geographically remote from the client enterprise; a type of offshore outsourcing (http://en.wikipedia.org/wiki/Offshore_software).

[9] "IT outsourcing" is a phrase used to describe the practice of seeking resources—or subcontracting—outside of an organizational structure for all or part of an IT (Information Technology) function (http://www.webopedia.com/TERM/I/IT_outsourcing.html).

Three main lessons can be learned from Luxoft's success story: (1) Gain access to technological frontiers by positioning yourself in a technologically advanced sector such as aero- and airspace industries; then by spreading these technologies to other industries create value for society and yourself. (2) Build your global expansion strategy on professional networks and communities, and position your core leaders centrally in them. Such networks can serve as doors to novel strategic partners and as leverage for brand and reputation development. Through professional networks you can gain access to information and knowledge relevant to your market and business intuition of what is coming next. (3) Invest in talent development and the promotion of well-trained employees to different positions. In the ICT sector, where programming knowledge never stops developing, such investment is crucial.

2.2 Grishko[10]

Overview

Address: Proezd Zavoda Serp i Molot, Moscow, Russia

Company Information

Industry:	Production of ballet shoes, dance shoes, and dance costumes
Year of establishment:	1989
Sales revenue in 2010:	n.a.
Sales revenue in 2000:	n.a.
Average number employees in 2010:	500
Brain(s) behind the company:	Nikolai Grishko

2.2.1 Nature of Market Leadership

Grishko is the world's third largest producer of pointe shoes for ballet and a leader in the production of ballet and dance shoes and costumes for training and performance.

2.2.2 Nature of Competitive Advantage

Grishko possesses secrets in the complex fine art of pointe making, and has a reasonable price-performance ratio relative to its closest competitors. The company produces pointe shoes exclusively for the most prominent ballet dancers in the

[10] http://www.grishko.com/pointe.cfm

world, catering to the specific needs of individuals, as well as different national ballet schools. The demand for Grishko shoes exceeds supply. This is so because Grishko's design is known to minimize foot deformation. The company has also managed to design an efficient business model.

2.2.3 Core Lessons Learned on the Path to Business Success

1. Mind the price differences between domestic and foreign products. Focus on products of superior quality and offer them at much lower prices. If you can manage to do that, a lucrative business may eventually evolve.
2. Superior products usually involve some secrets. Find a way into the trade and its craftwork knowledge. For example, Mr. Grishko cooperated with a colleague who did his PhD on pointes craftwork secrets.
3. Having a good product is necessary but not sufficient for long-term business success. One also needs a good business model. Hence, before going into large-scale business, do some in-depth research on the industry value chain, potential suppliers, distribution system opportunities, and production facilities.
4. Convince the most demanding clients that you have a good product. For example, Russian theatres had their own workshops producing ballet shoes and costumes, so Grishko had to struggle to convince dancers to try out his pointes. Once they were convinced, the business flourished.

2.2.4 Grishko: Hidden Champion

Russia has always been a country of ballet. In the nineteenth century, special theatre workshops, organized as guilds, designed custom-made shoes, so-called "pointes", for famous Russian ballerinas. The secret of pointe making was passed on by word of mouth. It was an industrial secret transmitted from generation to generation and each master added something new to the stock of knowledge. This is why pointes made by Russian masters have been famous globally, as famous as the Russian ballet. However, these theatre workshops were closed in 1917. Nevertheless, the secrets of this complex fine art were preserved, and after many years they were re-established by the Grishko company masters. Now Grishko's pointes are as popular all over the world as were those produced by the guilds.

The company started production in 1989. The idea to manufacture pointe shoes came when Nikolai Grishko saw that foreign dancers visiting Moscow were buying very cheap Russian shoes to take home, where they cost at least 50 US dollars. The significant price difference made Nikolai wonder how to grasp that business opportunity. After graduating from the Moscow Institute of Foreign Affairs in 1975, Nikolai started his professional career as a diplomat, and then became an associate professor at the Plekhanov Institute of National Economy.[11] He incidentally met a PhD student working on a dissertation on the design of ballet shoes. This is still the only dissertation in the world on that topic. Together they worked out the idea of ballet shoe production, which they successfully put into practice in 1989.

[11] The formal name of the Plekhanov Russian University of Economics.

They set up a cooperative, the only private business model allowed in the Soviet Union during the perestroika. Over the next 2 years, they did no business, only in-depth research on the industry value chain. They studied supplier options, distribution system opportunities and production facilities. The first revenues were created in 1991. The first products were not sold in Russia but in the USA, where a committed distributor was found. In the early 1990s the company produced 500 pairs of shoes per month. Only after its success abroad, in the late 1990s, did the company win over Russian ballet dancers as well, first from the Mariinsky Theatre in St Petersburg, then (by offering a 30 % discount) from the Bolshoi Theatre in Moscow. These theatres had their own workshops producing ballet shoes and costumes; therefore Grishko had to convince the dancers that his products were much better. Since then the demand for high-quality pointes from Russia has been growing. At present, Grishko is making 1,400 pairs per day or more than 350,000 pairs per year. Some shoes are produced exclusively for the most prominent ballet dancers in the world, catering for specific needs of individuals as well as different national ballet schools.

The production of pointe shoes is a very complex process, resembling craftwork. Shoemaking involves 40 different details and about 50 operations, most of which are done by hand. In general, it takes 3 months of theory study and a year of shop-floor experience for someone to start mastering pointe shoe production. The company realized that disabled people could meet the demands of the work. It employs around 76 people with hearing disabilities and participates in two Moscow programs to develop and modernize jobs for disabled people. Employees feel that they are a valuable part of the company and society. In this way the company business model is adding value to a wide range of stakeholders.

The leadership position of Grishko has created several challenges; the most arduous one is increasing production capacity to meet increasing demand. Nowadays, the company faces a gap of 3 months before its supply meets the demand for its shoes. Hence, training and personnel development is of utmost importance. Despite the waiting line, there is no shortage of clients because of the supreme quality of Grishko's pointes. This is so because Grishko's superior design minimizes feet deformation, which is a major problem for professional ballerinas.

The Grishko brand is very popular in more than 70 countries around the world. Its products are sold in six specialized and nine mono-brand stores. Its global market share is estimated at 30 % and is growing. All of the competitors are companies with centuries of tradition. Among Grishko's most prominent competitors are world-known brands such as Bloch, an Australian company set up by Jacob Bloch who moved from Europe to Australia in 1931, during the Great Depression. Another brand worth mentioning is Capezio. It is produced by a company founded by Salvatore Capezio who opened his first store in New York in 1887. As for Gaynor Minden's pointe shoes, they are considered controversial by many ballet dancers, as much of their construction involves synthetic materials—a major change in ballet. In general, professional ballet dancers never use pointes produced with artificial materials, as this damages their feet.

Grishko's pricing is different in Russia and abroad. Outside Russia, pointe shoes usually cost more than 40 US dollars, while in Russia the company sells them for no more than 25 dollars. Grishko sees this as a social project. By reducing prices Grishko makes ballet dancing more accessible to young Russian talents. Besides, Grishko provides 30 scholarships to the most talented students of the Russian ballet schools. Young Russian ballet dancers start using Grishko shoes when they are still in ballet schools. Having grown in Grishko pointes, they stay loyal to the brand throughout their professional careers.

After winning the Russian market for pointe shoes, the company started to diversify and produce a range of shoes for diverse dances: classical, jazz, sport, step, folk, flamenco, and rehearsal. Numerous dance and sport groups, studios, theatres, folk-dance ensembles, as well as dance and gymnastics schools, use Grishko shoes and dancewear. These dance accessories are manufactured from top quality ecologically pure materials. Some products are unique and have a licence. Ecological and natural materials are very important for high-quality dance shoes.

Grishko believes that the core of his company's success is the profound belief and commitment to be the best in both price and quality. The company sees itself as an ambassador of Russia: "We put 'Made in Russia' on our pointe shoes. This creates a different image for our country—without weapons—and we are proud of this."

Grishko has received several state and private awards for his business and social activities. In 2008, he received a special award, "The leader of Russian Economy". This prestigious award is largely a recognition of the company's ability to come up with a unique business model to create growth and reduce the 3-month gap between receiving and meeting orders. Grishko achieved this despite being in a mature industry with established competitors in the business for more than a century. Behind the successful business model is a trade secret for producing high-quality, hand-made products. This secret is internalized and continuously updated by special training of workers. Grishko successfully merges traditional and social marketing.

2.3 Russian Helicopters[12]

Overview

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[12] http://rus-helicopters.ru/

Company Information

Industry:	Production and sale of helicopters
Year of establishment:	2003
Sales revenue in 2010:	n/a
Sales revenue in 2000:	n/a
Average number employees in 2010:	500
Brain(s) behind the company:	The management team

2.3.1 Nature of Market Leadership

Russian Helicopters is the world's and Europe's fourth largest producer of high-weight efficient helicopters. The company is a market leader in the emerging economies (CIS, Asia, Africa, and Latin America). In the CIS region, the company holds 85 % of the market.

2.3.2 Nature of Competitive Advantage

Russian Helicopters is one of the leading players in the global helicopter industry. It was founded in 2007 as a joint stock holding company. The holding coordinates the activities of the five assembly plants, two design bureaus, two component production plants, and one overhaul plant, all of which were previously autonomous. Through this centralized coordination from the holding's headquarters, the company strives for global leadership by centralizing R&D activities, elimination of duplication of activities and other production inefficiencies, and highly unified global marketing sales efforts. Initially, most sales were in emerging economies: CIS, Asia, Africa, and Latin America.

2.3.3 Core Lessons Learned on the Path to Business Success

1. If you have a high-quality, technologically complex product manufactured by separate production plants, their merger under a common governance scheme may reduce inefficiencies, improve R&D, and increase market power.
2. Unify your sales and marketing efforts and focus on emerging economies.
3. It is not enough to have a superior product. Make sure that the whole business model design, and especially the design of after-sales activities, supports your long-term business success.

2.3.4 Rusian Helicopters: Hidden Champion

Russian Helicopters is one of the leading companies in the global helicopter industry. It is the sole Russian designer and manufacturer of helicopters, and one of the few companies worldwide with the capability to design, manufacture, service and test modern civilian and military helicopters. This company, headquartered in Moscow, was founded in 2007 as a joint stock company organized as a holding; however, some of the enterprises of the holding have existed for more than 60 years. The holding coordinates the activities of five assembly plants located in different

regions of the Russian Federation, two design bureaus, two component production plants, one overhaul plant, and one helicopter service company providing aftermarket services in Russia and abroad.

The company tries to satisfy the needs of multiple stakeholders, the most prominent one being Russia itself. The main reason for setting up the holding was the need to preserve the production of helicopters in the homeland, as well as to strengthen Russia's presence in the helicopter industry globally.

The holding is composed of a set of companies with a long experience in helicopter design. It can successfully challenge the global competition with its consolidated R&D activities under one roof, and elimination of duplication and other production inefficiencies, as well as its focused and highly-unified global marketing sales efforts.

By focusing sales and after-sales activities on emerging economies (CIS, Asia, Africa and Latin America), the company has established a leading position in some segments of the helicopter industry globally. In particular, the company is number one in the world in the production of medium and ultra-heavy machines[13] for civil purposes, as well as in the manufacturing of attack helicopters. Overall, Russian Helicopters is the third largest helicopter producer in the world, holding around 13 % of the global market. The company sells predominantly in Russia and the CIS region, where it is a market leader with an 85 % market share. According to company statistics, in 2011 there were over 8,500 Russian helicopters registered in more than 100 countries around the world. The company's global market share in 2011 was expected to increase to 15 %. The company is now considering new regions: India, China, Latin America, the Middle East, and Africa.

Russian Helicopters' main competitors include Bell Helicopter, Sikorsky, Eurocopter, Boeing, and Agusta Westland. At the state level, where the deals are normally made, the competition is largely between monopolies.

The data in Exhibit 3 show that Russian Helicopters almost tripled its revenues over a 3-year period, with the number of units sold increasing only slightly. The extra value was created by a more holistic approach to clients, offering them a full range of services and consultancy.

At present, the company employs 35,000 workers, engineers and management staff. According to CEO Dmitry Petrov, and Director of Strategic Planning Vladimir Makareikin, one of the main strategic challenges is talent management. They aim to improve the capabilities of the existing workforce as well as to assure continuous inflow of top talents into the company. Hence they have established close ties with Russian schools and universities of technology, engineering, economics and management.

From a technological perspective, the company works heavily on advanced technologies for helicopters for different purposes,[14] including transportation of freight and people, and work in extreme geographical regions and conditions, for instance for oil and gas extraction. Therefore, Russian Helicopters has to be

[13] Maximum Take Off Weight (MTOW) of more than 20 tonnes.

[14] Effective helicopters means good value for money.

Exhibit 3 Major economic figures for Russian helicopters

Year	Production (units)	Revenues
2007	102	
2008	169	362.2 mln RUR ($ 90 M)
2009	183	757.7 mln RUR ($ 195 M)
2010	214	813 mln RUR ($270 M)

Source: Russian Helicopters' Annual reports

exceptionally strong in R&D. Its Mil and Kamov design bureaus are ranked amongst the largest and most respected helicopter design facilities in the world. The history of the two bureaus is closely intertwined with the lives of the two men after whom they were named, Nikolai Ilich Kamov and Mikhail Leontyevich Mil, generally considered the fathers of the Russian helicopter industry. Nikolai Kamov, credited with the coining of the Russian word for helicopter, "vertolyot", was heavily involved in the theoretical research and production of the autogyro, a predecessor of the helicopter, as early as the 1920s.

Apart from the technological improvement of its core product, the company also innovates in pre-sales and after-sales activities. In fact, the forthcoming major revenue streams are expected to be generated from aftermarket services and maintenance of products through a network of globally distributed third-party service centres. The support business of the Helicopter Service Company and the Novosibirsk Aircraft Repairing Plant plays a crucial role in creating that revenue stream. It supplies component parts and materials as well as educational services to an already established third party network of 37 Russian and 46 international service centres. In addition, it is now setting up pivot service centres in key growth markets: India, China, and Latin America.

To sum up, the precondition for the global market leadership of Russian Helicopters was its state-of-the-art products: helicopters, ranging from very light to heavy, with options for fire-fighting equipment. The product diversity was sufficient to meet the needs of each specific customer. However, these products needed to be launched on the global market through a well-designed business model based on close partnerships with national and international leaders in the helicopter industry, and close ties with research and education institutions in Russia.

2.4 YANDEX[15]

Overview

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[15] http://www.yandex.ru

Company Information

Industry:	Computer programming, consultancy, and related activities
Year of establishment:	1997
Sales revenue in 2010:	n.a.
Sales revenue in 2000:	n.a.
Average number employees in 2010:	800
Brain(s) behind the company:	Chief Technology Officer Ilya Segalovich; CEO Arkady Volozh

2.4.1 Nature of Market Leadership

Yandex is the leading Internetcompany in Russia with a mission to provide an answer to any question Internet users may have. Yandex is recognized as the most popular search engine in Russian-speaking countries.

2.4.2 Nature of Competitive Advantage

Yandex is an abbreviation that expands into "Yet Another Index". The company holds a global leadership position because of its superior capability in three areas of innovation: product, process, and business model. Yandex was launched in 1997 as a search engine that took into account Russian language morphology. In 1998 the company made a second innovation leap by becoming a world leader in contextual advertising, which soon turned into its main revenue stream.

In 2001 Yandex launched Yandex.Direct: a tool that anyone could use directly, without any intermediary, to place his advertisement on a Yandex website. During the first year, more than 2,500 advertisers used this opportunity to place ads. In 2009, the company's innovative approach was manifested in a new method of machine-learning, MatrixNet, which represented a significant leap in comparison to foreign search engines like Google and Yahoo. In May 2011, Yandex raised 1.3 billion US dollars in an initial public offering on NASDAQ, which was the biggest such offering for a dotcom since Google Inc. went public in 2004. The company's capitalization has reached 8 billion US dollars.

2.4.3 Core Lessons Learned on the Path to Business Success

1. If technological innovation is the core of your business leadership, set up your own school through which you can successfully create and maintain a scientific environment favourable to the development of new technologies, and the recruitment of new talent.
2. If you are in a business where some competitors are globally stronger because of network effects (The more connected you are, the more attractive you are to newcomers), focus on language and region specifics, and design your products to better cover them.
3. Always try to meet the diverse interests of multiple stakeholders.

2.4.4 Yandex: Hidden Champion

Yandex is the leading Internet company in Russia with a mission to provide an answer to any question that Internet users may have. This explains why Yandex is recognized as the most popular search engine in Russian speaking countries. Yandex owns many popular websites, including narod.ru that creates small and simple websites free of charge.

The word "Yandex" was invented by the company's two principal founders, Chief Technology Officer Ilya Segalovich (currently the owner of 4.15 % of the company), and CEO Arkady Volozh (currently the owner of 19.77 % of the company). At the time, Ilya was experimenting with different derivatives of words that described the essence of the technology. As a result, the team came up with "Yandex".

Arkady Volozh and Ilya Segalovich were schoolmates and friends; Volozh graduated from the Gubkin Russian State University of Oil and Gas, and Segalovich from the Russian State University of Geological Prospecting in 1986. They shared a passion for programming and computer sciences, which resulted in the establishment of Yandex.

The official launch date of the Yandex.ru search engine was September 23, 1997. The Yandex search engine of 1997 took into account Russian language morphology and distance between words, and computed the relevance of a document using a complex algorithm. Thanks to the rising popularity of the Internet among Russians, and the strategic acquisition of competitive search engines like Aport and Rambler, Yandex took over the whole Russian market in 3 years. In 2000, at the time of the Internet boom, the capitalization of Yandex was estimated as 15 million US dollars.

In 1998, Yandex was among the first global companies to start contextual advertising, which provided an additional answer to users' queries. This type of advertising displays directly to its target audience, presenting the company with an additional revenue stream. This set the basis of Yandex's business model. In 2001, Yandex launched Yandex.Direct which enabled anybody to place ads on Yandex's websites without an intermediary. During the first year of the system's operation, more than 2,500 advertisers placed their ads on Yandex. This business approach proved to be very successful, particularly due to changes in the Internet advertising market in Russia, which after 2006 became bigger than traditional media advertising. In 2010 Russia's contextual advertising market was worth about 300 million euros and Yandex.Direct was able to grab more than 60 % of the Internet advertising pie. The estimated number of advertisers was around 120,000.

After 2005, the company expanded outside of Russia by opening representative offices in Ukraine, Kazakhstan, and Belarus. In 2006, Yandex began opening development offices outside Moscow—in St. Petersburg, and in Simferopol Ukraine. In 2009 the company opened an office also in the Silicon Valley in the USA.

Yandex's innovative approach led to a new method of machine learning, MatrixNet, launched in 2009. This breakthrough technology, which takes into account thousands of search factors and their combinations, has enabled Yandex to make more precise searches as well as refine the quality of search results

considerably. Thanks to MatrixNet, Yandex has made a significant leap compared to Google and Yahoo.

Software development and data analysis are the company's core capabilities, and talent development is its core policy. Hence, in 2008 Yandex opened the School of Data Analysis—a 2-year Master's Programme—to educate home-grown specialists in data analysis and information retrieval free of charge. Through this institution Yandex aims to create and maintain a scientific environment that is favourable for developing new technologies, recruiting new talent, and ensuring that Yandex remains at the forefront of innovation. In line with this strategy, in 2010 Yandex launched its investment programmes, Yandex.Start and Yandex.Factory, aimed at supporting young talented teams, stimulating the emergence of start-ups, and developing the industry as a whole.

Yandex is the largest Russian Internet company developing world-class proprietary technologies. In 2011, Yandex's average search share per quarter in Russia was 64.6 %, while Google held only 22.5 %. Yandex's share was 30 % in Ukraine, 39 % in Belarus and 25 % in Kazakhstan. According to Alexa.com, Yandex.ru is in 22nd position among the "Top 500" global websites.

These figures confirm that Yandex is considered one of the most successful dotcom in the world. Its success is built on innovative, continuous technological development of a range of information services on the Internet, and a distinctive business model that satisfies diverse interests of multiple stakeholders. It is well adjusted to the context of the CIS market. Hence, through its orientation to small and medium businesses (contextual advertising), individual Internet users (information services), and corporate business (media advertising), the company has managed to achieve sustainable development.

2.5 JCG Nanotechnology NT-MDT[16]

Company Information

Industry:	Production and sale of nanotechnology instrumentation
Year of establishment:	1990
Sales revenue in 2010:	n/a
Sales revenue in 2000:	n/a
Average number employees in 2010:	300
Brain(s) behind the company:	Viktor Bykov

[16] http://www.ntmdt.com/

2.5.1 Nature of Market Leadership

Nanotechnology MTD is the world's third largest producer of zoned microscopes. Its share of the global market in 2010 was 16 %, while its closest competitor had only 8 %. This type of microscope is increasingly important in research and development in a range of industries, from semiconductors to life sciences.

2.5.2 Nature of Competitive Advantage

Nanotechnology MTD was started as a research project in 1990 by a group of scientists led by Viktor Bykov, working at the Moscow Institute of Physics and Technology. The project resulted in the first scanning tunnel microscope (STM). Unlike most researchers at that time, Viktor Bykov decided to commercialize a device called NT-MDT, an electronic scanning probe microscope. His passionate efforts and firm belief in the product soon brought in the first clients, mainly research institutes. At present, the company serves many clients from diverse high-end technological sectors, including aerospace, biomedical and life sciences, electronics, nanotechnology, semiconductors, electronics, telecommunications, and research centres and universities. MTD's competitive advantage is its customized production of complex nano-scanning solutions that operate under a variety of conditions—in a vacuum, at extra-high or super-low temperatures, in liquids, and so forth.

2.5.3 Core Lessons Learned on the Path to Business Success

1. If you are a scientist with a useful invention in applied sciences, this discovery should not be an end in itself. Try to commercialize the idea with all the passion and vigour that you possess. A combination of passion and reason will create the necessary energy to start the business ball rolling.
2. When trying to commercialize a new discovery, focus first on research institutes with fellow scientists who speak the same language as yourself, and gain a deep understanding of the value of your discovery.
3. To boost your growth, penetrate universities and encourage students to use your products in their research projects. Design your product as an educational system. These students may one day become decision-makers at research centres, and they are loyal clients already!

2.5.4 NT-MDT: Hidden Champion

JCG Nanotechnology NT-MDT is representative of the research intensive, high-tech, Russian HCs. It started as a research project in 1990 by a group of scientists lead by Viktor Bykov, a graduate of Moscow Institute of Physics and Technology, a leading Russian technical university. Their research project succeeded in designing the first scanning tunnel microscope (STM). The basic principles of STM devices were first developed in 1981 by Gerd Binning and Heinrich Rohrer, who then received the Nobel Prize in Physics[17] in 1986 for their discoveries in the area of

[17] They shared the Nobel Prize with Ernst Ruska who first designed an electron microscope.

electronic microscopes. Since then two types of microscopes—scanning tunnel microscope (STM) and scanning probe microscopes (SPM)—have been developed and used for specific research and engineering purposes.

It was because of Bykov's passion for research, his entrepreneurial talent and his strategic foresight, that the research team sustained its commitment to basic science, and did not abandon it as many other researchers in Russia had done after government financing ceased in the early 1990s, causing severe cuts in researchers' salaries. In subsequent joint efforts, Bykov's research team did what many talented researchers failed to do—commercialize their research results. In particular, they developed and commercialized a device called NT-MDT, an electronic scanning probe form of microscopy. This type of microscopy has become increasingly important in materials research and development, across a range of industries from semiconductors to life sciences. It probably would not be right to say that Bykov, from the very start, visualized his business as it is today. But market reforms launched in Russia in the early 1990s, combined with his entrepreneurial and leadership skills, made it possible to produce and successfully install more than 2,000 devices at major scientific research and production centres in Europe, Asia, and North America.

Today, NT-MDT is a leader in the Russian STM market, and has a great reputation around the world. Company growth compared to that of its competitors shows its impact on market trends in the STM segment. There are four or five other Russian companies in this market segment, but all of them are much smaller in size, sales volume, and product portfolio.

The microscopes market, in a wider sense, is dominated by global companies offering a wide range of products across a variety of platforms, including FEI Company, Hitachi High-Technologies, JEOL, Carl Zeiss, and Oxford Instruments Plasma Technology Ltd. STM represents an important market segment, mainly populated by medium-sized and small private companies.

The world market of SPMs is mainly concentrated in the developed countries, which invest a lot in basic science and future technologies. The main consumers of SPM products are major nano-technological research centres. Each research project is best performed with customized nano-technological instrumentation. Customization is carried out for clients according to specific needs, functionality, and ergonomic design. These innovative technologies meet the many needs of students, cutting edge researchers, and industrial users at R&D centres. Key end-users of the company's products are firms in the field of aerospace, biomedical and life sciences, electronics, nanotechnology and nano-materials production, telecommunications, and semiconductors and electronics, as well as research centers and universities. They mainly seek technologically superior products:, superior performance characteristics, superior resolution, superior complexity, and shrinking geometries in materials research.

Accordingly, the most attractive markets for NT-MTD are located in the USA, Europe, and the Asia-Pacific region. NT-MDT's market share in the EU is 35 % and the sales volume there has been increasing steadily from year to year, even through the financial recession. The Asia-Pacific region (Japan, South Korea and India) is

the fastest-growing region, and NT-MDT has shown significant progress in sales revenues there. Recently, the company has established distributors in Beijing and Shanghai and both have shown good results. But the biggest market breakthrough that the company has achieved is in the USA. The sales figures there tripled from 2009 to 2010. NT-MDT intends to extend its presence in the market and attain 30 % of market share.

NT-MTD believes that a good method for boosting sales is to penetrate university classrooms. If you provide students with an opportunity to use company products in their research projects, they may be loyal clients when they become research centre decision-makers. That is why a popular product line of NT-MDT is its educational devices, NANOEDUCATOR. Devices are designed for a wide range of uses and are appropriate for first-time microscope users. Recently, *R&D Magazine* has ranked the NANOEDUCATOR training laboratory among the −100 most technologically significant products introduced into the marketplace. Mr. Bykov demonstrated this product to Russian President D. Medvedev during a hi-tech exhibition in 2008. The company is always working to improve this product category and has adjusted its use for both Windows XP and Mac OS operating systems. Data sharing via iPhone TM and iPad TM is also possible.

To summarize: the success story of NT-MTD is to a large extent based on Mr. Bykov's use of initiative and creativity, and his recognition of young talent as the main innovator. Much work is done in teams. Investment into R&D is a core part of the company business model. Growth is realized through global expansion and a high level of entrepreneurial skills. Last but not least, Mr. Bykov is also an inspirational lecturer and chair at Moscow Institute of Physics and Technology, viewing his teaching as a way to inspire young talent in science, technology and business. He is constantly searching for the best talent: "Graduates with degrees in physics or other technical sciences can always learn marketing and strategy if they understand the principles of our products; without this understanding they are useless to our business".

Conclusion

The founders and owners of most Russian HCs, not only the five companies presented here, are strong leaders, all endowed with strong personalities, daring to challenge conventional wisdom. They have good market-trend intuition and state-of-the-art scientific knowledge in mathematics, physics, or other sciences. Many also hold MBA degrees. They carry years of experience and deep knowledge of their specific business segment, and have the ability to inspire young talent to join their enterprises, as well as the ability to persuade other external stakeholders such as government and big business to take advantage of the benefits that they offer to them.

However, the great majority of Russian HCs succeeded in a time of favourable market trends. Raising market demand was prevalent in the IT and software sector, research instruments, and helicopters. An attractive price/quality ratio was another contributing factor. Last but not least, many of the Russian HCs created value for a wide range of stakeholders, i.e., higher education institutions, governments, and research institutes, among others.

Most of the companies have a strong presence in the national economy, and now they are growing abroad; usually first conquering the CIS region, and then gradually getting into other emerging economies. The main markets for Russian HCs are China, Latin America, India, Africa, and the CIS. They monitor competition closely and know all the major competitors personally.

Most companies (16 out of 29 investigated) were established at the beginning of perestroika; some even before the 1930s. These senior HCs are mainly involved in heavy industry and metallurgy; some of them are closely tied to nuclear research and development. Companies from the IT sector were mainly founded at the beginning of 1990, when ICT industry developments became less ambiguous and uncertain.

The interviewed HCs are real innovators; in fact they have come up with technological solutions that have shaped their industry technological frontiers. In general, innovations can be grouped into four main types: technological, processing, organizational, and marketing. Most of these companies are technological innovators—they carry out their intensive research activities and commercialize their innovations. Some of them are also processing innovators, improving their production processes and benefiting from them. Several of them are marketing innovators—they are introducing new forms and instruments of marketing and promotions. A few of them are also organizational innovators; that is, innovating their whole business model and revenue streams.

However, all of them can be considered guiding stars leading the way along a path that other Russian companies should follow.

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