

### **4.1. Russian Market and Global Presence**

For a long time, export-oriented operations of Russian software developers supported the rapid growth of their revenues, regardless of the situation in the domestic market. The attractiveness of the domestic market increased after 2014 due to the events in Ukraine and due to the associated acceleration of the imports phaseout process. In subsequent years the growth rate of domestic developers in the domestic market was high or quite high (except for the time of crisis in 2015). And although the Russian software market could expand only by 3-5% per year, this did not prevent Russian companies from growing their sales on this market by 10-20%, and in some years by more than 20% (in 2016, due to the deferred demand, the increase in ruble terms was even 34%).

The introduction of numerous new sanctions aimed at undermining the Russian economy in 2022, and the exit from the Russian market of almost all large companies representing the United States and other NATO countries, provided work for Russian software developers for years to come. Therefore, the growth of sales in the domestic market in the next few years will be limited only by the state of the economy and the availability of specialists. Consequently, the expected annual increase in revenues from the implementation of software development solutions and services within Russia can amount to 15-20%.

The many-years analysis conducted by the RUSSOFT association allows concluding that work in the domestic market and work for export are closely interconnected. The experience of cross-border projects implementation allowed Russian service companies to create complex information systems in Russia both for government agencies and large and not very large commercial enterprises. Due to its global presence, product companies received export revenues, which provided the investments required to develop their solutions and to market them around the world, including in Russia.

At the company level, the benefits of working both in Russia and abroad were also obvious. On average, the growth rate of companies with a significant share of exports (at least 25%) was much higher than that of enterprises whose presence was limited only to the markets of Russia and near abroad countries. Perhaps, by the end of 2022, exporting companies will not have such an advantage, since they have too many problems with operation in Western countries, and reorienting to the Russian market or other friendly markets will not allow them to compensate for unexpected and significant losses of these companies during the year. Nevertheless, in terms of the strategic development of both individual software companies and the entire industry, the export direction remains as important as before. Perhaps it becomes even more important, given the division of the market into "friendly," perceiving Russia as a source of technological sovereignty (primarily in the field of IT) and "unfriendly," which at any moment can stop the provision of modern technologies. A fundamentally new situation has emerged in the world market that favors the promotion of Russian IT solutions, technologies, and services.

In terms of population, the "friendly market" presents the biggest part of the world. Since digital sovereignty assurance in the countries of the Middle East, Africa, Latin America, and Asia (with Oceania) about the same problems as those existing in Russia have to be solved, the link of operations in the domestic market with cross-border operations becomes even closer. Moreover, some complex tasks that require significant resources (human, investment, organizational) can be solved jointly with states that have set a course to technological independence from Western countries.

5-7 years ago, the heads of service companies did not see any special prospects for working in the markets of countries that are commonly called developing ("they are incomprehensible," "the return on investment in marketing is several times less than in Western countries," "there are local competitors whose cost of services is lower than in Russia"), but in recent years the attitude towards these markets has changed dramatically. The volume of information required to start operations in the countries of Asia, the Middle East, Latin America has increased. In addition, it turned out that with a lower wage level on average, in a number of countries there are simply no specialists with the experience and qualifications required to develop complex information systems.

In the last 2-3 years most companies with 20-30 percent or more of their turnover coming from export to Western countries, started sales or at least showed an intention to sell their custom software development services in developing countries (even in Africa). There are already many companies among product companies that have been working successfully in these countries for a long time. After the start of a special military operation in Ukraine it became almost impossible not to consider this alternative to the markets of Western countries in case companies wish to develop globally.

With the gradual reorientation from some foreign markets to others over the past few years, Russian software companies have formed an almost ideal ratio of export revenues and revenues from operations in Russia. In 2018-2019 the growth rate of sales at home and abroad differed, but the difference was not very large. In 2018 the revenues received in Russia grew faster, while in 2019 the growth of revenues from cross-border sales was faster. At the end of 2020 full parity was established – the increase in sales both in the domestic market and outside Russia turned out to be approximately 16% in ruble terms. In terms of dollars and rounding to tenths of a percent, sales in the domestic market have a slight advantage in terms of growth rates. Domestic sales added 4.5% while foreign sales increased by 4.3%.

According to the results of 2021, absolute equality was reached for the increase in sales in the Russian and foreign markets (+19% in ruble terms and +17% in dollar terms). At the same time, the volumes of these sales are quite comparable: USD 10.07 billion collected from exports, USD 11.1 billion collected from operations in the domestic market (47.5% and 52.5% of the total turnover of Russian software companies). In order to consider the development of the industry absolutely balanced, the growth rate could probably be slightly higher. With an account for the resources available in Russia, an increase in total revenue can be theoretically assumed equal to 20-25%.

The transformation of the interest of software developers in working abroad and in operations in Russia can also be traced by the share of companies that do not have export revenues at all. However, herewith it will be required to account for the way the structure of the array of surveyed companies is changing. The share of exporters among surveyed companies for various reasons seriously changes from year to year, and these reasons do not always reflect the existing proportions in the general population.

At the end of 2017 24.8% of surveyed companies had a zero export indicator,

while at the end of 2018 the number of such enterprises was about 1.5 times higher – 35.6%. At the same time, most of the companies that participated in the survey in the last 2 years (a quarter of those surveyed in 2019) showed a decrease in the share of exports (including to 0%). As a rule, these are small companies for which cross-border operations in 2017 provided no more than 10-15% of revenues. Large custom software developers have also increased sales in Russia.

In 2019 the share of companies with no export revenues decreased to 14.3% (it became less than in 2017). However, it should be borne in mind that, firstly, not many companies participated in the 2020 survey (72 questionnaires), and secondly, a large share of participants of the survey (61%, which is much more than 20-30% in previous years) was made up of members of the RUSSOFT Association, which has historically been an association of software exporters. The share of respondents with no export contracts by the end of 2020 increased to 29.6%, and this growth does not indicate a clearly increased interest in the domestic market. This growth is explained by the fact that it is especially difficult (usually impossible) to find customers in other countries for small companies that have not yet earned a reputation abroad and to conclude contracts online. Such companies (with a turnover of less than RUB 320 million) have increased export revenues by 6.5%, and larger ones – by 12.8%.

At the same time, according to the results of 2021, the absence of export revenues was indicated by 42.1% of surveyed companies. This growth is primarily due to the fact that in spring 2022 when the survey was conducted, exporters working in the markets of Western countries had to urgently solve the problems associated with the receipt of payments for previously completed works and to change their development strategy. As a result, the share of such companies in the total mass of enterprises covered by the survey has decreased significantly.

Other indicators suggest that there has been no such sharp increase in the share of companies with no export revenues (which means a sharp decrease in the number of exporters) throughout the industry. Firstly, 3.5% of the companies participating in the survey in 2022 had export revenues in 2020 reduced to zero in 2021, but at the same time, the same number of companies had foreign sales in 2021 in the absence of export revenues in 2020. This means that some companies have lost their "exporter" status while others have acquired such status in the same amount. Secondly, the share of exports has decreased in 2021 compared to the same indicator in 2020 in 20.7% of surveyed companies and has increased in 21.4% of companies. It indicates a completely insignificant difference. Thirdly, the absolute value of export revenues has increased in 38.6% of surveyed companies and has decreased only in 17.9%.

Nevertheless, long-term observations of the state of the industry with the current fluctuations allow concluding that the share of surveyed companies not having export revenues has nevertheless increased slightly over the past 5 years. There are reasons to believe that 30-35% of all software industry enterprises did not have export revenues in 2021, 25-30% did not have experience in foreign markets (even in near abroad countries). According to the expert assessment, based on the experience of conducting various (not only annual) RUSSOFT studies, at least 20% of Russian software development companies are basically not ready to enter foreign markets. Consequently, 5-10% of companies that do not have any international experience

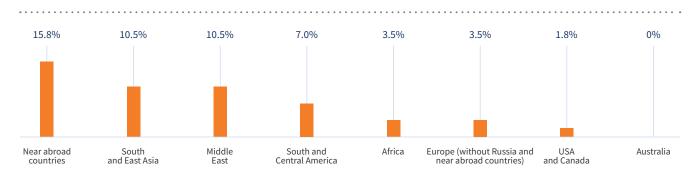
may well become exporters in the next 2-3 years and many of them already have the corresponding intentions.

With a declining share of exporters for a particular year (preceding the annual RUSSOFT survey), the focus on entering foreign markets is very high. If companies with absolutely no export revenues in 2021 are considered, 26.3% of these companies (almost 9% of all surveyed enterprises) have an intention to enter a foreign market in 2022. The most attractive markets are those in near abroad countries (15.8% of all companies without export revenues in 2021), South and East Asia (10.5%), and the Middle East (10.5%). Some of the companies that have foreign expansion plans will not debut in foreign markets but will return to them.

Most likely, not all intentions to return or to enter foreign markets for the first time

will be confirmed by real projects already in 2022. The desire to expand in foreign markets covers a wide range of Russian software companies, but with limited resources, they have to choose between real opportunities to increase sales in the domestic market and hypothetical prospects for entering new foreign markets. The choice is often made in favor of working in the Russian market, in which the situation is very favorable for the increase in sales.

#### Interest of companies with no export revenues in 2021 to foreign markets (share of such companies planning to enter specific markets in 2022)



At the height of the pandemic in mid-2020, RUSSOFT made the following forecast: "Companies that have managed to gain a foothold in foreign markets will have indicators no worse than companies that did not work outside Russia and near abroad countries. Reorienting to the domestic market from foreign markets is much easier than the other way around. " This forecast turned out to be correct and gained the status of a rule. Only in times of rapid growth of the domestic IT market (by tens of percent) could this rule have exceptions in some years. This rule once again worked when summing up the results of 2020: companies with an export share of less than 25% increased turnover by 1.4%, with an export share of less than 50% - by 4%, and by 21.7% with an export share of more than 50%.

However, judging by the survey data, the results of 2021 no longer confirm this rule: companies with an export share of less than 25% increased turnover by 21.4%, with an export share of less than 50% - by 22.5%, and with an export share of more than 50% - by 14.6%. Notably, these average revenues increases are specific to the companies surveyed, and as noted above, a significant proportion of successful exporters were unable to participate in the survey. At the same time, some exporters moved from the "more than 50%" category to the "less than 50%" category. Since exports of all software enterprises and their sales in the domestic market grew equally, it can be argued that the export has provided no less growth than operation in the domestic market.

Relative to 2022 it can be assumed that companies with a relatively low share of exports will have better growth indicators. On the one hand, the attractiveness of the domestic market has increased, on the other hand, Russian software exporters have serious problems in the markets of Western countries, and it is impossible to quickly reorient to other foreign markets. It is not improbable that in 2023 it will not be possible to compensate for losses in the western direction with an increase in sales revenues in Asia, the Middle East, South and Central America, and Africa.

Nevertheless, when considering a longer period, a larger share of export revenues provides a higher rate of turnover growth. The mistake was that exporting companies, operating mainly in the markets of Western countries, delayed entering other markets, not believing in their potential attractiveness in the future and not predicting the risks of turning "Western" countries into "unfriendly." RUSSOFT for about 10 years has pointed out that there are large foreign markets underestimated by Russian software companies, but the reorientation to them was not fast enough.

In the last 4 years (2018-2021), software developers are better able to expand their business at the account of foreign markets. This phenomenon is not affected either by fluctuations in the ruble exchange rate against the dollar or by a pandemic.

Apparently, the Russian market for product companies is already too tight. However, the process of imports phaseout is very active in some of its segments. For example, this applies to basic office software – operating systems and office applications. Companies operating in this segment can grow by tens or even hundreds of percent per year without going abroad, but their total turnover relative to all developers of replicated solutions is not yet great.

### Growth rate of exports of service and product companies and their sales in the domestic market in 2020-2021 (in dollar terms)

	20	20	20	21
	export	domestic sales	export	domestic sales
services	+0.5%	+11.5%	+7.9%	+15.6%
products	+5%	+0.7%	+18.2%	+14.3%

# 4.2. Distribution of Sales by Macro-Regions of the Global Market

Since 2015 RUSSOFT has acquired data on the sales of Russian software companies in various macro-regions of the world. Prior to this the importance of certain regions of the global market was assessed only by the number of surveyed companies that indicated their presence in a particular part of the world.

As practice shows, calculations have a large error, and the share of each macro-region strongly depends on the activity of those companies with a large share of exports in their turnover, participating in surveys. At the same time, when considering the period of several years (or from the beginning of these calculations) and with account for way the structure of the array of surveyed companies has changed, it is quite possible to get a general idea of the existing distribution of sales by macro-regions. This distribution was confirmed by the data of the Central Bank of the Russian Federation on the receipt in Russia of export revenues for computer services provision from different countries. If there were serious deviations, they had explanations. The fact is that software developers can receive revenues either directly from the country in which they worked, or through the offshore zone, or through regional hubs (for example, Cyprus, Luxembourg, Hong Kong, Singapore). For example, a higher figure of Ukraine in RUSSOFT

calculations compared to the data of the Central Bank of Russia indicated that it is difficult for Russian companies to work directly in the market of this country. They sell software to Ukraine under the guise of European developers.

It should be borne in mind that customers from near abroad countries often have offices in Russia, which means they can pay for the software delivered from the bank account of a Russian legal entity. Therefore, the share of "neighboring (near abroad) countries," which according to RUSSOFT calculations amounted to 5-7% in 2019-2020, most likely, was seriously underestimated.

Distribution of sales of Russian software companies by macro-regions of the Global Market in 2016-2021, % of the total turnover (calculation of the significance of specific markets)

	2016	2017*	2018	2019	2020	2021
Russia	37%	49.5%	55.3%	52.4%	52.5%	52.5%
Near abroad countries (former Soviet Union)	_	_	_	4.7%	7.3%	13.45%
USA and Canada	17.7%	17.1%	13.0%	16.3%	13.0%	11.8%
Europe (without Russia and near abroad countries)	_	-	_	13.6%	12.4%	12.2%
South and East Asia	5.5%	4.0%	4.0%	3.8%	6.5%	2.9%
South and Central America	1.8%	1.5%	1.6%	2.6%	2.7%	2.4%
Africa	1.1%	0.5%	0.6%	2.1%	1.4%	0.3%
Australia	1.6%	0.9%	0.9%	2.4%	0.7%	1.25%
Middle East Countries	1.2%	1.3%	1.4%	2.1%	3.5%	3.2%

\* — since 2017 the share of sales of Russia was determined by more accurate calculations of the total turnover and total foreign sales of Russian software companies, and not by the indicated significance of the markets.

When summing up the results of 2021 the calculation was greatly influenced by a reduction in the share of surveyed companies with an export share of more than 25% (from 27.4% to 18.1%). Such a reduction could not be in the general population.

With account for random fluctuations the approximate distribution of all sales in 2021 by macro-regions will be as follows: Russia – 51-53%, CIS countries – 8-10%, USA and Canada – 13-15%, Europe (without Russia and near abroad countries) – 12-13%, South and East Asia – 5-7%, South and Central America – 2.5-3%, Africa – about 1%, Australia – about 1%, Countries of the Middle East – 3-5%.

RUSSOFT 2019 data is difficult to directly compare with similar data from the previous few years. First, because the division of the global market has changed. Secondly, due to the fact that calculations were performed in a different circle of companies (in 2019, the revenues of several large companies that ceased to be Russian according to the RUSSOFT classification were not accounted for). In addition, a slightly changed methodology of the total turnover and total foreign sales calculation was used.

The 2020 distribution is calculated based on the data obtained as a result of a fullfledged survey (as opposed to the 2019 distribution). For this reason it is more correct to compare the data of 2020 with the data of 2018, but with account for the slightly changed methodology.

Traditional markets for the Russian IT industry are the Western World and the former Soviet Union countries. "Western World" is presented in the general table with the distribution of sales by macroregions as follows: "USA or Canada," "Germany and German-speaking countries," "Scandinavia and Finland," "Other countries of Western Europe," "Australia" and "Countries of Central and Eastern Europe," which are currently still becoming closer to the Western world (especially since they are all members of the EU). Apart from Russia the "Former Soviet Union," stands for Belarus, Ukraine, Kazakhstan and Uzbekistan.

"New Markets" are divided into the following macro-regions: "South and East Asia," "Africa", "South and Central America" and "Middle East".

Grouping markets allows to increase the accuracy of calculations, but still these markets need to be adjusted. For example, data of 2021 incorrectly reflects the growth of Russia's share along with near abroad countries. If such growth was present (due to a faster increase in exports in the former Soviet Union states), then not from 60% to 65%, but only by 1-2 percentage points. The share of Russia has not changed at all. Most likely, the share of "New Markets" exceeds 11% in reality and has not changed significantly over the year, and the share of "Western World" is 27-29%, and not 25%, but over the year it also remained almost unchanged (just in this case, the calculations did not reveal this change).

#### Distribution of sales of Russian software companies by market groups

	2015	2016	2017	2018	2019	2020	2021
Russia and near abroad countries	59.4%	61.1%	54.8%	60.6%	57.1%	60%	65.95%
Western World	34.7%	32.0%	37.9%	31.8%	32.3%	26.0%	25.25%
New markets	5.9%	6.9%	7.3%	7.6%	10.6%	14.0%	8.8%

If we consider the period since 2015, then we can quite confidently talk about the growth of the share of "Russia and other countries of the former USSR" and "New Markets" while reducing the share of "Western World." The growth of the Western World market indicator in 2017 can be considered an episode related to the devaluation effect. Such changes are supported by data on a significant increase in sales in the domestic market and an increase in the number of news reports on activities in "New Markets".

# 4.3. Presence of Russian Software Companies in Foreign Markets

Interest in various markets can also be assessed by the share of companies' presence in these markets and by the respondents' assessment of the importance of each market (whether there are key or only individual projects implemented in this market).

Most often, the United States/Canada (8.2%), Europe (7.0%) and near abroad

countries (5.3%) were recognized as the key foreign market in 2021. In the remaining macro-regions, the proportion of presence did not exceed 3%.

### Presence of software companies in domestic and foreign markets in 2021 with assessment of their significance, % of surveyed companies

	The market is a key market	Only individual projects are implemented in this market	Presence
Russia	87.7%	7.6%	95.3%
Near abroad countries	5.3%	39.2%	44.4%
Belarus	2.3%	22.2%	24.6%
Ukraine	0.6%	11.7%	12.3%
Kazakhstan	1.2%	28.6%	29.8%
Uzbekistan	0.6%	16.4%	17.0%
USA/Canada	8.2%	15.8%	24.0%
Europe (without Russia and near abroad countries)	7.0%	28.1%	35.1%
Great Britain	1.2%	8.2%	9.4%
France	1.2%	8.2%	9.4%
Italy	0%	4.7%	4.7%
Germany and German-speaking countries	2.9%	12.3%	15.2%
Northern Europe (Scandinavia and Finland)	1.15%	9.35%	10.5%
Central and Eastern Europe	1.75%	12.85%	14.6%
South and East Asia	1.15%	16.95%	18.1%
China	0.6%	5.3%	5.9%
Japan	0%	4.70%	4.7%
India	0.6%	5.3%	5.9%
Africa	0.0%	5.9%	5.9%

	The market is a key market	Only individual projects are implemented in this market	Presence
South and Central America	2.3%	7.6%	9.9%
Brazil	1.2%	4.1%	5.3%
Mexico	0.6%	3.5%	4.1%
Argentina	0.6%	3.5%	4.1%
Middle East	2.9%	11.1%	14.0%
Australia/New Zealand	1.2%	4.7%	5.9%

 Markets Grouping

 Developed Markets
 12.6%

 New markets
 42%

 24.0%
 28.2%

If we compare the indicators of presence in certain markets in 2021 with similar indicators in previous years, the reduction is present in almost all markets. This is due to the fact that many companies with a wide sales geography and a large share of exports were unable to take part in the 2022 survey. The share of companies that had business in Kazakhstan, Belarus and Uzbekistan increased, which may be due to the beginning of the transfer of exporters of their business from Russia to neighboring countries to escape the sanctions. The reduction in Ukraine's share is too large to be explained by these random fluctuations. It undoubtedly reflects the real situation, although a threefold drop in the share of companies operating in the Ukrainian market seems unlikely (most likely, this drop was less).

#### Presence of Russian companies in domestic and foreign markets in 2007-2021, % of surveyed companies

	2007	2013	2014	2015	2016	2017	2018	2019	2020	2021
Russia	55%	93%	94%	92%	87%	93%	94%	90%	99%	95%
Former USSR countries,	-	_	-	-	-	_	_	44%	49%	44%
Kazakhstan	_	_	_	_	_	_	_	36%	26%	30%
Belarus	32%	33%	27%	33%	28%	29%	26%	32%	19%	25%
Ukraine	17%	39%	30%	32%	25%	23%	20%	28%	36%	12%
Uzbekistan	_	_	_	_	_	_	_	24%	16%	17%

	2007	2013	2014	2015	2016	2017	2018	2019	2020	2021
USA and Canada	55%	41%	48%	36%	37%	42%	39%	58%	32%	24%
Europe (without Russia and near abroad countries)	_	_	_	_	_	_	_	51%	42%	35%
Great Britain	_	_	_	_	_	_	_	28%	16%	9%
Germany (German speaking countries)	25%	22%	24%	27%	19%	31%	29%	33%	11%	15%
France	_	_	_	_	_	_	_	19%	10%	9%
Italy	_	_	_	_	_	_	_	21%	17%	5%
Scandinavia (with Finland)	28%	17%	17%	18%	16%	20%	21%	22%	12%	11%
Countries of Central and Eastern Europe	_	_	_	_	16%	20%	21%	24%	16%	15%
South and East Asia	19%	8%	12%	15%	13%	16%	17%	26%	22%	18%
China	_	_	_	_	_	_	_	24%	10%	6%
Japan	_	_	_	_	_	_	_	10%	4%	5%
India	_	_	_	_	_	_	_	15%	9%	6%
South and Central America	-	_	_	8%	8%	14%	10%	17%	9%	10%
Brazil	_	_	_	_	_	_	_	10%	10%	5%
Mexico	_	_	_	_	_	_	_	10%	5%	4%
Argentina	_	_	_	_	_	_	_	7%	5%	4%
Africa	_	_	_	9%	7%	10%	8%	17%	3%	6%
Middle East	_	8%	6%	9%	11%	16%	19%	21%	13%	14%
Australia	_	_	_	8%	10%	16%	12%	15%	8%	6%

Data on companies' interest in various markets obtained as a result of the survey conducted in 2022 (the answer to the question "are already working or are planning to enter these markets"), the change in the structure of the surveyed companies had a strong impact (reduction in the share of companies with a wide business geography and a high share of exports in turnover) as well as the fact that the questionnaire reflected plans for the current year only (previously, respondents had the opportunity to reflect plans for the next year). The results of the survey conducted in 2022 show a decrease in interest in almost all foreign markets. However, for most countries and macroregions, this decrease in reality either did not occur, or it was not as significant as presented in the corresponding table. Some interesting conclusions can be drawn with account for the features of the survey conducted in 2022.

The U.S. market is still the largest. For this reason Russian software developers, who have already secured a foothold in this market, do their best not to leave it. Although every year it becomes more and more difficult for new companies to enter this market, the share of companies that planned their debut in the American market in the current and in the next year (relative to the year of survey) from 2016 to 2019 grew steadily, increasing from 8% to 13% over 4 years. The survey in 2020 did not turn out to be complete due to the pandemic, and therefore its results are not indicative, and in 2021 this indicator remained at a fairly high level (11.6%).

In 2022, only 1.8% of surveyed companies planned to start or resume operations in the US market in the current tear (in relation to the year of survey). This indicator decreased by almost 4 times, which cannot be explained in any way by a change in the structure of the array of surveyed companies (it could maximum result in a decrease of 1.5 times). The attitude towards the prospects of the European market (without Russia and near abroad countries) have also worsened, but the fall in the corresponding indicator was still less than that for the United States - from 7.8% to 3.0%. The European market is still much closer to Russia, although the projected economic crisis in the EU countries may lead to the fact that entry into it will be possible for the same share of companies as the share of those companies which can debut or return to the US market. Most likely, access to these markets will be carried out (if at all) not directly, but through offices in neutral countries (for example, established in Turkey, Georgia or Armenia).

The interest in the markets of near abroad countries has not changed on average. Kazakhstan and Belarus, most likely, remained as attractive as in previous years. Ukraine has become almost of no interest to anyone, and the number of companies wishing to work in the Uzbek market has clearly increased. It seems that serious economic and social changes in the country which have caused more active participation of Russian software developers in various events that were held in Uzbekistan in the last 2 years. Delegations traveled to this Central Asian country with the support of the Russian government and development institutions.

The share of those wishing to enter new markets in the South and East Asia has increased significantly. When considering relevant plans only for the current year in relation to the year of survey, the indicator in 2022 (in comparison to that in 2021) has increased from 5.3% to 9.6%. The increase in interest in the Indian market is especially great - the share of those planning to enter it increased from 2.4% in 2021 to 7.2% when surveyed in 2022. The attractiveness of working in local markets also increased in the South and Central America (corresponding indicator has increased from 4.9% to 7.8%) and in the Middle East (the increase from 4.4% to 8.4%).

According to a survey conducted in spring 2022, 23.4% of surveyed companies planned to enter a foreign market new to the company for the first time in the current 2022, and 19.2% of surveyed companies planned to enter the market of far abroad countries. A year earlier corresponding figures were almost the same. At the same time, the results of the RUSSOFT annual study indicated that the existing plans in the last 5-7 years have almost never been confirmed by actions: with all intentions to enter foreign markets more actively, Russian developers accelerated sales in the domestic market.

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#### Share of companies interested in different markets

		2021 Survey Data		2022 Su	rvey Data
	The interest is present *	Planned to enter the market in 2021	Planned to enter the market in 2022	The interest is present *	Plan to enter the market in 2022
Near abroad countries	63.1%	9.7%	4.4%	52.7%	7.2%
Kazakhstan	48.1%	8.3%	3.9%	37.1%	6.6%
Belarus	35.9%	5.3%	4.9%	28.7%	3.6%
Ukraine	24.8%	3.9%	1.5%	13.8%	1.2%
Uzbekistan	26.7%	6.8%	4.4%	27.0%	9.6%
USA and Canada	43.2%	6.8%	4.9%	26.4%	1.8%
Europe (without Russia and near abroad countries)	56.8%	7.8%	6.8%	38.9%	3.0%
Great Britain	19.9%	2.4%	1.5%	11.4%	1.8%
Germany (German-speaking countries)	26.2%	6.3%	2.9%	16.8%	1.2%
France	14.1%	1.9%	1.5%	12.0%	2.4%
Italy	13.6%	1.5%	1.9%	7.2%	2.4%
Scandinavia (with Finland)	16.5%	2.4%	1.9%	11.4%	0.6%
Countries of Central and Eastern Europe	25.2%	4.9%	4.4%	16.8%	1.8%
South and East Asia	33.0%	5.3%	5.9%	28.1%	9.6%
China	15.5%	2.9%	2.9%	10.8%	4.8%
Japan	8.7%	1.9%	2.9%	6.6%	1.8%
India	12.1%	2.4%	1.0%	13.2%	7.2%
South and Central America	19.4%	4.9%	4.4%	18.0%	7.8%
Brazil	11.2%	2.9%	3.4%	7.2%	1.8%
Mexico	8.3%	2.9%	0.5%	6.0%	1.8%
Argentina	7.3%	2.4%	1.5%	6.0%	1.8%
Africa	16.0%	2.9%	3.9%	13.2%	7.2%
Middle East	20.9%	4.4%	3.9%	22.8%	8.4%
Australia	12.6%	1.9%	2.9%	8.4%	2.4%

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 $^*$  — already present in the market or planned to enter the market in 2021-2022 during the 2021 survey  $^{**}$  — are already in the market or are planning to enter the market in 2022.

# 4.4. Emergence of "Problem Markets" due to the Escalation of Political Tensions

In terms of sales of Russian software companies, the US market in 2021 as in previous 20 years has retained the second place (after Russia), but the gap from European markets in the last 2 years has become very insignificant.

It is known that for the largest Russian exporters, the share of sales in the United States in total revenues was often measured by tens of percent, and sometimes reached 50% and even 80%. Service companies were more active in the US and EU markets than product companies. However, for leading product companies, the US market provides very significant volumes of export revenues. An illustrative example is Kaspersky, a leading Russian developer of solutions in the field of information security, which in former times has annually earned up to USD 200 million in the US market, but 5-7 years ago, this figure started to decline (to about USD 150 million according to reports in the American media in 2017). Most likely, the decline in sales in the American market continued, although according to the company itself, its fall in 2020 did not occur.

Summing up the results of 2021, Kaspersky did not report anything about sales in the US market, but with a total revenue growth of 6.5% in dollar terms, the revenues from operations in the Russian market increased by 28%, by 16% in the Middle East, Turkey and Africa (META region), by 11% in Latin America, by 4% in Europe, and by 3% in in Asia-Pacific. Therefore, it can be assumed that sales in the United States did not grow at best, but most likely declined.

This example demonstrates how, under the influence of propaganda and administrative pressure, Russian developers have gradually been pushed from certain markets (primarily the countries of the European Union, the USA, Canada and Ukraine, where the media are campaigning to create a negative image of Russia). Government agencies were not allowed to purchase Russian software in any form at all, and commercial companies were not recommended to do this.

Apparently, from the spring of 2022 it will become even more difficult to operate in the markets of the USA, Canada and the EU, which will lead to a sharp reduction in sales of Russian legal entities. The delivery of software from Russia directly to these markets has become almost impossible (if only because it is impossible to receive payments for the transferred solutions and works executed). Therefore, some companies that depend on working in these markets either closed their business in Russia, organizing the departure of some of their specialists abroad, or created representative offices in neutral countries through which they intend to continue operations in the markets of "unfriendly" countries.

Most likely, the sales of Russian software companies in Western markets will not be completely close to zero for some time (it can be assumed that their calculations will become very complicated, since domestic developers will try to make information about their work in the West confidential or even secret). Commercial companies will not want to change suppliers of custom software from Russia if a long-continued cooperation has already been established with them. Replacing Russian software products is also far from always possible. Even US government agencies quickly failed to abandon Kaspersky's solutions, although they were under pressure to do this.

Against the background of the need to maintain the budget and to improve the quality of software, phaseout of Russian custom software developers from the American market can also be a difficult task. At the end of June 2019, it became known that the software for the crashed Boeing 737 Max aircraft was created by Indian programmers who were hired by American contractors to develop applications. This was reported by Bloomberg, a reputable publication in Western countries.

Consequently, not only the Russian side, but also the American side suffers from a political aggravation. Mutual dependence in the IT sphere turned out to be quite high. It remains to be seen which side of the conflict will suffer more from Western sanctions policies. Maintaining sales in Western markets at all costs seems to be a strategic misjudgement of the management of those companies that have stopped their developments in Russia. Most likely, the business of such companies is already being divided into a foreign one, which has retained the brand and has offices outside of Russia, and a Russian one, which is gaining a new brand and is operating under the Russian jurisdiction.

At the same time, Russian developers are now unlikely to be able to expand their business in Western countries or to enter their markets for the first time. There may be exceptions, but expansion as a mass phenomenon has become impossible.

### 4.5. "New Markets"

For more than 30 years, Russian software companies have had the main sales in the domestic market, in the market of near abroad countries and in the markets of Western countries (EU, USA). These sales account for at least 85% of total revenues of software developers, and 15-20 years ago this figure was close to 100%. Other markets (Asia, the Middle East, Latin America and Africa) are still not fully studied and understood by Russian software companies. That is why they are referred to as "New Markets."

Judging by the results of the 2022 survey, 41.3% of surveyed companies have interest in the markets of Western countries (they either already work in these markets or plan to enter them in 2022), and have interest in "New Markets" – 38.9%. These indicators are almost no different. At the same time, the dynamics are not in favor of Western countries. However, in absolute terms "New Markets" so far (according to the results of 2021) generate 1.5-2 times less revenues than markets of Western countries.

Based on Gartner and IDC data, the US and EU account for approximately 60% of global IT spending (including telecom services), while "other" markets account for 40%. Earlier, RUSSOFT pointed out a huge discrepancy between the distribution of sales and the capacity of markets, believing that all exports to far abroad countries should be distributed in accordance with the size of markets. In the future, the share of "New Markets" in this export should be slightly more than 40%. It was assumed that sales to the countries of the Western world remained at a high level and would also grow, but more slowly.

The proportions of 40/60 in the distribution of sales between "New Markets" and "Western Markets" in recent years have been achieved or almost reached. However, starting from spring 2022, circumstances force us to set another task – sales in "New Markets" should fully compensate for the losses from the closure of markets of Western countries for Russian companies. In part, this compensation is also possible due to increased sales in Russia and in near abroad countries.

# 4.6. Geographical Preferences of Service and Product Companies

Service companies specializing in custom software development initially (they began to appear en masse in early 90s) worked only in the markets of Western countries. Until 2005-2010, neither the Russian market nor any other markets were of interest to these companies. Only a few years ago service companies started to implement projects in Russia, until that time they received most of their revenues (up to 90-95%) from operations in the USA and Europe. Individual service companies have customers only in Western countries, but these are small enterprises that are not able to have a wide geographical representation of their business.

By 2019-2020 all service companies with a turnover of more than USD 10 million could not ignore the Russian market. In 2021, only two outsourcing companies participating in the RUSSOFT survey (out of 68) did not have revenues generated in the domestic market. The turnover of one of these companies was about USD 5 million, and the turnover of the second company was even less – its revenues slightly exceeded USD 0.5 million. At the same time, they were not limited only to the markets of Western countries, but also worked in near abroad countries and in Latin America.

Since about 2017, RUSSOFT recorded a noticeable increase in the interest of

Russian custom software developers in the markets of Asia, the Middle East and Latin America. Even the African market started to attract Russian custom software developers, who also saw a solvent demand in this market for project development services. It turned out that this demand exists even in countries where the cost of labor is much lower than in Russia, since in these countries, as a rule, specialists do not possess the experience and qualifications required to implement complex projects.

The development strategy of service companies, which involves the development of new markets, led to the fact that during the survey conducted in 2022 44.5% of such companies indicated interest in the markets of South and East Asia, the Middle East, Latin America and Africa. The presence of interest means that they either already were operating in these markets in 2021, or planned to enter them in 2022. A year ago, there were fewer such companies – 39.5%, although then respondents could report plans not for one year (current in relation to the time of the survey), but for two years (current and next).

#### The attitude of Russian product and service companies to operations abroad (share of surveyed companies) in 2021-2022

	Ser	vice	Product		
	2021 survey	2022 survey	2021 survey	2022 survey	
Work or plan to work this year in all markets	1%	3%	9.5%	2%	
Did not operate abroad in the previous year and do not plan to operate abroad	16.5%	21.5%	17%	28%	
Operations only in Russia in the previous year	23%	26%	27.5%	40%	
Western markets (actual presence or plans to enter these markets)	65%	57%	57.5%	30%	
New markets (actual presence or plans to enter these markets)	39.5%	44.5%	40.5%	34%	

In 2021 12% of Russian service companies surveyed were present in the market of the South and Central America, and a year earlier there were only 3% of such companies. The share of operating service companies in the Middle East market grew from 8% to 18%, and in the African market - from 1% to 6%. The figure for India is not very large (4% with double growth in a year), but it is noteworthy that it is not zero. A few years ago, it was difficult to imagine that the services of Russian service companies would be in demand in the Indian market, with powerful local companies in India that dominate the global market for custom development and other IT services.

The interest in Western markets shown by the results of the survey conducted

in 2022 is still high. This interest was indicated by 57% of surveyed service companies, but in 2021 the share of such companies was higher – 65%. The dynamics is such that the markets which are referred by RUSSOFT as "new" will soon be more often indicated by custom software developers as attractive if compared to the same indications of the markets of Western countries.

US and European politicians are forcing Russian software companies to faster reorient to the markets of Asia, the Middle East, Latin America and Africa. By the end of 2022, most likely, the markets of Western countries will still provide Russian outsourcing companies with the main export revenues, but by the end of 2023 they may cease to be the main source of foreign sales. At the same time, it is not unlikely that European and American enterprises hosting custom software development in Russia will be in greater loss than Russian software companies, which have previously created information systems for these enterprises and which have participated in complex design developments.

# Presence of Russian product and service companies in the domestic and foreign markets in 2020-2021, % of surveyed companies

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	Proc	Product		vice
	2020	2021	2020	2021
Russia	100%	99%	98%	90%
Near abroad countries	64%	53%	32%	32%
Belarus	35%	35%	14%	9%
Ukraine	27%	16%	11%	6%
Kazakhstan	51%	36%	18%	21%
Uzbekistan	22%	24%	8%	6%
USA/Canada	21%	11%	43%	41%
Europe (without Russia and near abroad countries)	32%	27%	54%	46%
Great Britain	13%	7%	20%	12%
France	12%	8%	10%	10%
Italy	12%	3%	9%	6%
Germany and German-speaking countries	12%	10%	24%	22%
Northern Europe (Scandinavia and Finland)	10%	6%	14%	15%
Central and Eastern Europe	18%	10%	14%	21%
South and East Asia	25%	15%	18%	21%
China	12%	5%	7%	6%
Japan	5%	4%	2%	4%
India	13%	5%	2%	4%
Africa	16%	6%	1%	6%
South and Central America	16%	8%	3%	12%
Brazil	8%	5%	1%	4%
Mexico	8%	4%	1%	3%
Argentina	5%	2%	1%	6%
Middle East	17%	11%	8%	18%
Australia/New Zealand	9%	1%	7%	12%

Product companies more often have started their history with operations only in the Russian market. As a rule, these companies have very quickly launched sales also in near abroad countries and only after a while, after having generated free resources required for international marketing, they started to enter the markets of far abroad countries. In some cases, software products were straight away developed for the global market, but there are only several dozens of such successful cases. In addition, companies that immediately sought a global presence subsequently changed their jurisdiction or initially positioned themselves not as Russian business entities.

There are cases (at least one is known) when Russian software products were successfully sold only abroad, and only then they were launched in the Russian market with some difficulties.

Thus, the share of exporters among companies specializing in software

development showed growth in recent 20 years. The results of questionnaire surveys conducted during the last two years show that such growth is followed by a fall. However, now this conclusion will be incorrect, since many exporters of software products could not take part in the survey conducted in 2022 (these exporters were engaged in urgent solving of problems that arose due to the sanctions policy of Western countries). The composition of surveyed product companies has changed a lot because of this situation. 34.4% of product companies of all companies participating in the survey did not have export revenues in 2021, while in 2022 the share of such companies became 50.5%. It was this change that led to a decrease in the percentage of domestic software developers "present in foreign markets". And notably the companies operating in the markets of Western countries were most affected by sanctions. It was more difficult for them to take part in the survey than for companies that operate only

in Russia and in non-western markets. With no account for the change in the composition of surveyed companies, the indicators of product companies presence in various foreign markets would most likely be almost the same as a year earlier. For this reason it is better to judge the interest of these companies in various foreign markets based on the results of the survey conducted in 2021. It can only be assumed that product companies reorientation from the markets of Western countries to the Russian market and markets of near abroad countries, of Latin America, Africa, the Middle East and Asia, if not yet explicit in the last 2 years, will definitely start in 2022.

The structure of the array of surveyed service companies, which is determined by the share of export revenues in total revenues, is practically the same in 2021 and in 2022. That is why the conclusions about service companies reorientation from some markets to others are quite correct.

# 4.7. Geographical Distribution of Software Development Centers

Remote software development centers are created by Russian companies to solve two problems: either to ensure more close location of developers to the customer and so that they can work out with customers all the issues that arise 24/24 and 7/7, or (which happens more often) to gain access to local human resources in the labor market. Most often, Russian companies find the right specialists in other cities of Russia.

The results of the survey conducted in 2020 show, that in 2019 44% of surveyed

companies had remote software development centers in other cities of Russia. But in this case, the results of the survey were affected by the coronavirus pandemic, due to which the composition of surveyed companies showed a more significant predominance of large companies located in Moscow and St. Petersburg than in other years. Herewith, the number of respondents was insufficient. The results of the survey conducted in 2020 only in rare cases can reveal any trends in the distribution of remote software development centers in Russia. The data of the survey conducted in 2021 produced results that allow to better identify trends. For example, there are all reasons to believe that the share of companies that planned to open a development center in Russia or abroad in the next 2 years has grown (this also applies to far abroad countries). However, it was not clear how these plans would be affected by the practice of using the remote mode of operation for a significant part of employees outside the office.

# Availability of software development centers and plans to open such centers in the next 2 years, share of surveyed companies

	Survey in 2016	Survey in 2017	Survey in 2018	Survey in 2019	Survey in 2020	Survey in 2021	Survey in 2022*
Have at least one remote development center in Russia or abroad	40%	43%	31%	32%	44%	37%	41%
Plan to open in Russia or abroad in the next 2 years	32%	25%	31%	31%	36%	38%	16%
Have abroad	22%	22%	16%	14%	28%	13%	8%
Plan to open abroad in the next 2 years	22%	11%	11%	17%	21%	20%	13%
Have in far abroad countries	11%	14%	11%	10%	24%	10%	6%
Plan to open in far abroad countries in the next 2 years	15%	9%	10%	14%	18%	17%	10%

 $^{*}$  — plans not for the next 2 years, but only for one current (2022) year

The companies surveyed in 2021 assumed that the remote mode operation for the current year would account for 58% of man-hours. In 2022, this figure fell to 36%, which suggests that some employees were sent to the "remote" forcibly, while work in the office is more desirable for them.

The share of man-hours attributable to remote operation still remains significant, but the impact of this factor on the presence of development centers in other cities of Russia and in other countries cannot be determined based on the available data. A large share of surveyed companies still has a production site outside the city where the head office is located (41% in 2022). When adjusting the survey results with account for not entirely ideal representativeness, it is possible to say that approximately 35% of Russian software companies have remote development centers, and that changes of this indicator, if any, are insignificant. This is the share of enterprises that need an additional production site, and that can afford to create such additional production site.

Reduction in the share of surveyed companies that have software development centers abroad or plan to open such centers abroad, is not related to real changes, but to the fact that, firstly, the survey involved a smaller number of enterprises actively working for export, and secondly, a change was made to the questionnaire according to which respondents in 2022 reported plans only for the current year, and not for 2 coming years, as was the case in previous surveys. At the same time, despite the fact that the survey failed to cover the same number of exporters as in studies in previous years, interesting data were obtained on plans for 2022. Interest in countries in the former USSR has sharply increased (with the exception of Ukraine, which does not have and is not planned to open software development centers, as well as Belarus). Offices in these countries (for example, in Armenia, Georgia, Uzbekistan) are already open or will soon be opened, primarily in order to work with customers in the EU and the USA from these offices. Development centers in South and East Asia, as well as in the Middle East, may have the same function, but these macroregions are also attractive as markets in which Russian software companies can significantly increase sales.

### Attractiveness of macro-regions (countries) for operation of remote development centers in these regions, % of surveyed companies

	Plans to create a development center in 2022 (the survey conducted in 2021)	Development center already exists or is planned to be established in 2022 (the survey conducted in 2022)
Russia	4.1%	43.3%
Other former USSR countries (except for Belarus and Ukraine)	6.4%	8.2%
Belarus	0%	2.3%
Ukraine	0%	0%
Scandinavia and Finland	0%	0.6%
Germany and German-speaking countries	0.6%	1.2%
Central and Eastern Europe	2.3%	3.5%
Other Western European countries	1.8%	3.5%
Middle East	5.3%	5.3%
South and East Asia	3.5%	4.7%
USA/Canada	1.8%	4.1%
South and Central America	1.2%	1.2%
Australia	0%	0.6%
Africa	1.2%	1.2%

The changes in the questionnaire made in 2020 made it possible to obtain data on which cities of Russia are most interesting for remote development centers establishment and on the number of employees in these centers.

In 2021 many more cities were represented in the answers to this question than a year earlier, because the number of surveyed companies increased from 72 a year earlier to 206. As a result, it turned out that the head office or remote software development centers are located in 66 cities of Russia, which cities represent 50 regions. It can be considered that the survey covered all cities and regions in which at least several dozen software companies operate.

In 2022 less software companies were surveyed – 171. This is why the number of cities and regions represented by respondents has decreased: head offices or remote software development centers of Russian companies exist in 64 cities that represent 48 regions of Russia, as well as Kazakhstan and Belarus.

Head offices of surveyed companies are located in 36 settlements (29 regions), remote development centers are located in 53 cities (in 42 regions of Russia, in Kazakhstan and in the Republic of Belarus). The total number of employees (technical specialized specialists) of remote development centers amounted to 4,412 people by the end of 2021. A year earlier, there were 11,396 people. The decrease was only due to the fact that several very large companies with a large number of employees and an extensive network of remote development centers did not participate in the survey conducted in 2022. In previous years these companies have almost always forwarded their completed questionnaires.

Although the quality of the survey in 2021 was much better than a year earlier, in terms of the number of employees in remote development centers, the first 4 positions are also occupied by St. Petersburg (again with a wide margin from others), Voronezh, Nizhny Novgorod and Saratov (while Nizhny Novgorod and Saratov have changed places, but their indicators are not very different).

In the survey conducted in 2022 Nizhny Novgorod rose to the first place based on this indicator, but only because some large companies that have remote development centers with a large staff in St. Petersburg did not participate in the survey.

### Number of mentions of the city (region) as the place of location of the head office or the remote development center (Top-10)

1	Moscow	68
2	Saint-Petersburg	58
3	Novosibirsk	17
4	Rostov region (Rostov-on-Don)	15 (12)
5-6	Tomsk	11
5-6	Tatarstan (Kazan)	11 (7)
7-8	Nizhny Novgorod	10
7-8	Moscow region	10
9-10	Yekaterinburg	9
9-10	Crimea	9

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### Top 15 Russian cities by the number of employees in remote software development centers of non-resident companies located in these cities, people

	Survey in 2020		Survey in 2021				Survey in 2021		
1	Saint-Petersburg	3487	1	Saint-Petersburg	4318	1	Nizhny Novgorod	490	
2	Voronezh	749	2	Voronezh	845	2	Saint-Petersburg	473	
3	Saratov	728	3	Nizhny Novgorod	656	3	Moscow	455	
4	Nizhny Novgorod	546	4	Saratov	621	4	Samara	440	
5	Moscow	497	5	Samara	554	5	Voronezh	227	
6	Omsk	480	6	Ryazan	521	6	Kazan	213	
7	Ryazan	480	7	Omsk	415	7	Novosibirsk	207	
8	Izhevsk	297	8	Perm	295	8	Krasnodar	206	
9	Samara	297	9	Moscow	286	9	Orel	202	
10	Kostroma	286	10	Izhevsk	278	10	Yekaterinburg	158	
11	Novosibirsk	180	11	Yaroslavl	275	11	Rostov-on-Don	151	
12	Tver	140	12	Cheboksary	240	12	Saransk	112	
13	Taganrog	85	13	Rostov-on-Don	204	13	Minsk	99	
14	Togliatti	80	14	Belgorod	143	14	Vladivostok	92	
15	Rostov-on-Don	79	15	Tver	138	15	Tomsk	90	
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# 4.8. Facts Related to the Geographical Expansion of Russian Companies in 2017-2022

Over the past 6 years, the most news reports addressing the foreign activities of Russian high-tech companies has concerned South and East Asia. Also, judging by this news, the attractiveness of the market of former CIS and the Middle East countries is very high. The European market was very interesting, but only until 2022, so that at this yearend there will probably be much more news reports on the problems of Russian IT companies in this market compared to the number of news reports on their successes.

Foreign marketing activities in 2020-2021 were negatively affected by the pandemic with its inherent restrictions on foreign events and trips.

Naturally, over 6 years, the major amount of news was related to the field of information security. Moreover, conclusion of any contracts in this area is advertised much less often than in other areas.

#### Statistics on news about activities abroad in the IT sphere in 2017-2022 with division by macro-regions

	2017	2018	2019	2020	2021	2022 (6 months)	Total news reports in 6 years
South and East Asia	7	4	13	8	3	3	34
Europe (without Russia and near abroad countries)	6	3 (1-)*	6	6	6 (2-)	1 (1-)	28 (4-)
Middle East	5	2	7	3	5	2	24
Near abroad countries	5	2	5	6	4	7	29
Africa	1	2	5	4	3	1	16
Latin America	4	1	1	2	2		10
USA	1	2		1	5 (2-)	3 (1-)	12 (3-)
Australia	1				1		1
Total in a year	22	16	31	24	29 (4-)	17 (2-)	

\* – a minus in parentheses indicates the amount of news with negative character (for example, exit from the foreign market)

# Statistics on the news on activities in the IT sphere outside Russia in 2017-2022 with division by areas of activities of developers

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	2017	2018	2019	2020	2021	2022 (6 months)	Total news reports in 6 years
Information Security	6	4 (1-)*	6	5	3 (1-)	5 (2-)	29 (4-)
AI intellect, robotics	1	1	3	1	3	1	10
Enterprise management systems, billing	5		1	3	3	5 (1-)	16 (1-)
Biotmetry, identification systems, video surveillance	2	1	1	1	2	0	7
Data storage systems, Data backup and storage	2	2	0	0	2	0	6
Custom software development and IT services	1	1	3	0	0	0	5
Video conferencing	0	0	1	3	0	1	5
Systems for public administration	0	0	2	2	0	0	4
Data analysis solutions	2	0	1	0	0	1	3
Cloud management development	1	1	0	1	0	0	3
Office software	0	0	1	1	1	0 (1-)	3 (1-)
IoT	0	0	0	1	1	1	3
Electronic document flow	0	0	0	2	1	0	3
Online trading solutions	0	0	0	1	2	0	3
Other	1	1	5	3	1	1	12
Total areas covered	9	7	14	14	10	7	

\* - the minus in parentheses indicates the amount of news with a negative character (for example, exit from the foreign market)

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## 4.9. Vertical Markets

#### The frequency of mentions of vertical markets in 2007-2019 (% of all respondents)

Year of survey / Vertical markets	2007	2009	2011	2013	2015	2016	2017	2019	2020	2021	2022
Information Technology	89%	69%	74%	74%	68%	70%	80%	78%	79%	78%	72%
Banking *	35%	36%	23%	26%	34%	29%	20%	38%	53%	39%	45%
Telecom	34%	33%	26%	31%	27%	27%	30%	44%	46%	41%	35%
Industries	31%	31%	27%	38%	37%	33%	28%	41%	57%	51%	55%
Hospitality, Travel & Transportation	24%	31%	28%	29%	31%	27%	28%	45%	61%	42%	47%
Government	28%	25%	21%	24%	28%	24%	22%	37%	49%	38%	43%
Power supply, Gas & Oil	18%	24%	17%	22%	29%	21%	18%	32%	43%	41%	42%
Healthcare and Pharmaceuticals	23%	24%	23%	28%	28%	24%	26%	39%	53%	43%	38%
Retail & Distribution	35%	24%	26%	29%	24%	26%	22%	38%	50%	37%	36%
Education	36%	23%	21%	28%	24%	25%	22%	31%	39%	37%	36%
Science and Applied Research	_	_	18%	26%	20%	20%	26%	31%	35%	25%	18%
Gambling and Entertainment	20%	11%	9%	15%	17%	15%	16%	22%	14%	11%	8%
Media	_	_	13%	18%	18%	13%	14%	18%	21%	18%	12%
Sport and Travel	_	_	10%	17%	11%	15%	16%	23%	29%	19%	13%
Insurance	_	_	13%	15%	15%	13%	11%	21%	25%	24%	22%
Building and Real Estate	_	_	12%	17%	28%	17%	16%	33%	36%	33%	35%
Services	_	_	27%	35%	26%	22%	28%	42%	44%	36%	30%
Finances	_	_	25%	26%	21%	19%	19%	33%	47%	33%	33%
Energy	_	_	17%	21%	24%	22%	21%	31%	42%	35%	38%

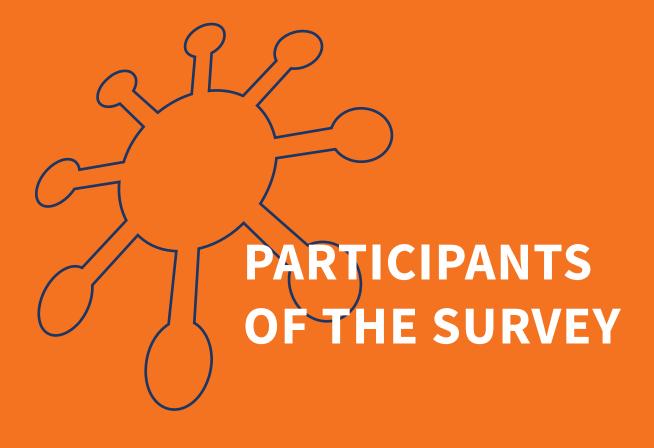
\* — till 2011 – Banking & Financial Services

For the entire duration of the survey performance by RUSSOFT no consistent pattern was revealed related to the change of the importance of individual vertical markets for Russian software development companies. Fluctuations of this indicator are random or temporary. In general, it can be concluded that industry-based priorities of Russian exporting companies have not fundamentally changed during a decade. The only clearly identified pattern related to vertical markets was due to a sharp reduction in the number of mentions of these markets per one company at a time of crisis. In 2009-2010 software developers were forced to concentrate their efforts in the areas in which these developers are most competitive, or in

the areas less exposed to the global crisis. A similar decrease in this indicator was revealed during the survey performed in 2015-2016.

In 2018 no relevant question was present in the questionnaire. This question was again included in the questionnaire in 2019 and allowed us to see a sharp increase in the average number of these vertical markets – it reached 6.8, while in 2016-2017 this figure was 4.6.

The growth of this indicator continued in 2020 (an increase to 8.2), but this was primarily due to the specific composition of the surveyed companies (the share of small companies was much less than in previous years). Nevertheless, the data of the survey performed in 2021 suggests that since 2019 (perhaps since 2018, when there was no corresponding question in the questionnaire) the digitalization process has intensified in almost all sectors of the Russian economy, which intensification has affected the increase in demand in vertical markets. In the past three years, the frequency of mentions of each vertical market has also fluctuated, as in previous years, but already at a high level. The average number of specified vertical markets per company in the survey performed in 2021 was 6.8, the same as in 2019, with a slight decrease to 6.6 in 2022.



Company	Head office location	Web	E-mail	Phone	Specialization	Expertise in areas corresponding to global technological trends
2Nova Interactive	Saint- Petersburg	2nova.ru	hello@2nova.ru	(812) 318-4085	Custom software development	
7bits	Omsk	7bits.it			Custom software development	AR & VR Development; Artificial Intelligence; Big Data & BI; IoT; Smart City
A7 Systems	Saint- Petersburg	a7systems.ru	info@a7systems.ru	(812) 603-7137	Development of programming tools and database	Artificial Intelligence; Big Data & BI; IoT; Smart City
Across Engineering	Moscow	across.ru	info@across.ru	(495) 517-8033	Custom software development	
Active Business Consult / VS Robotics	Moscow	vsrobotics.ru	pr@vsrobotics.ru	(495) 136-5182	Embedded software (equipment, devices)	Artificial Intelligence; Big Data & BI
ALAN-IT	Yaroslavl	alan-it.ru	info@alan-it.ru	(485) 237-0303	Development of own analytical services	Artificial Intelligence; Big Data & BI; IoT; Smart City
Alee Software	Saint- Petersburg	alee.ru	info@alee.ru	(812) 309-7859	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other); Custom software development	
ALPOM	Saint- Petersburg	alpom.ru	inbox@alpom.ru	(921) 745-5069	Custom software development; Embedded software (equipment, devices)	
Altcraft	Ryazan	altcraft.com	contact@altcraft.com	(491) 290-1004	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	Big Data & Bl
ALT-SOFT	Saint- Petersburg	altsoft.spb.ru	altsoft@altsoft.spb.ru	(921) 956-7961	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	Artificial Intelligence
Alvion Europe	Sevastopol	alvioneurope.ru	info@alvioneurope.ru	(978) 767-9890	Custom software development; Website designing	Big Data & BI; IoT; Smart City

Company	Head office location	Web	E-mail	Phone	Specialization	Expertise in areas corresponding to global technological trends
Angels IT	Voronezh	angelsit.ru	it@angelsit.ru	(473) 255-5007	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other); Embedded software (equipment, devices)	AR & VR Development; Artificial Intelligence; IoT; Smart City
Arax Group	Moscow	araxgroup.ru	info@araxgroup.ru	(495) 504-8263	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	Artificial Intelligence; Blockchain Technology
Arcadia	Saint- Petersburg	softwarecountry. com	info @softwarecountry.com	(812) 610-5955	Custom software development	Artificial Intelligence; Big Data & BI
A-Real Consalting	Yaroslavl	xserver.a-real.ru	hello@a-real.ru	(800)555-9297	Information security solutions	Artificial Intelligence
Artezio	Moscow	artezio.com	welcome@artezio.com	(495) 981-0531	Custom software development	Artificial Intelligence; Big Data & BI; Blockchain Technology
ASys Soft	Moscow	asys.ru	asys2007@mail.ru	(929) 539-7815	Custom software development	
АТМ	Moscow	атм.москва	mail@atm.msk.ru	(499) 490-2207	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	Big Data & BI; IoT; Smart City
Auriga	Moscow	auriga.com	pr@auriga.com	(495) 713-9900	Custom software development	Embedded and system- level development; Big Data; ML; IoT
A U R	I G A'	worldwide. Hea centers and ope We offer custom integration, tes construction to consumer elect	dquartered in the U.S. erating 13+ embedded n software developmer ting and test automatic ols manufacturers, ind	, with 600+ emp testing R&D lab nt, product main on services for r ustrial automat s, software vence	ng outsourcing software loyees located across se s, Auriga delivers 100+ pr Itenance, re-engineering nedical device, automob ion and power managem lors (ISVs), semiconducto , nVent and others.	ven development rojects yearly. ; and porting, ile and nent companies,

AV Soft	Moscow	avsw.ru	konkurs@avsw.ru	(495) 988-9225	Information security solutions	Artificial Intelligence; Big Data & BI; IoT; Smart City
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Company	Head office location	Web	E-mail	Phone	Specialization	Expertise in areas corresponding to global technological trends
AVS Consulting	Moscow	avsconsulting.ru	avs@avsconsulting.ru	(925) 999-3071	Custom software development, Website designing	AR & VR Development; Artificial Intelligence; Big Data & BI; Blockchain Technology; Smart City
AXELOT	Moscow	axelot.ru	a.dolgikh@axelot.ru	(495) 961-2609	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	
Axilon	Moscow	axilon.ru	info@axilon.ru	(916) 815-3499	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other), Custom software development	Big Data & BI
BOBDAY	Krasnodar	bobday.ru	info@bobday.ru	(800) 201-3375	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other); Custom software development	Big Data & BI
Brain Systems Group	Saint- Petersburg	brainsystems.ru	zakupki @brainsystems.ru	(800) 555-3107	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	
Celsus	Kaluga	celsus.ai	celsus@celsus.ai	(965) 077-7705	Embedded software (equipment, devices)	Artificial Intelligence
CenovikPRO	Moscow region	cenovik.pro	info@cenovik.pro	(495) 215-5248	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	Artificial Intelligence; Big Data & BI
Cerebro	Moscow	cerebrohq.com	info@cerebrohq.com	(499) 110-8234	Basic software development (DBCS, OS, office applications, virtualization tools, programming languages and tools)	
Citrus	Ioshkar-Ola	citrus-soft.ru	alex@citrus-soft.ru	(987) 702-7147	Website designing	
CodeInside	Penza	codeinside.ru	office@codeinside.ru	(8412) 636-736	Custom software development	Artificial Intelligence; IoT

Company	Head office location	Web	E-mail	Phone	Specialization	Expertise in areas corresponding to global technological trends					
CommuniGate Systems	Moscow	communigate.ru	russia @communigate.ru	(499) 271-3154	Development of unified communications technologies						
Cortex	Krasnodar	cx.technology	info@cx.technology	(988) 245-9945	Custom software development; Scientific researching	Artificial Intelligence; Blockchain Technology					
			ogy is an international h, and digital transforr		focused on digital comn authorities.	nodity trading,					
Cor	tex	Our key practice	es:								
COI		CQG, public blo	<ul> <li>Digital commodity markets for metals and chemicals, trade platforms integration (Nasdaq, CQG, public blockchains), real-time data exchange, blockchain technologies (custom blockchain, dAps, smart-contracts);</li> </ul>								
					automation, procureme ological and medical da						
		— Incident man	agement in casinos;								
			ision support and incid	ent manageme	nt systems.						
Crosstech Solutions Group	Moscow	ct-sg.ru/	info@ct-sg.ru	(495) 741-8864	Information security solutions	Artificial Intelligence; Big Data & BI					
CVisionLab	Taganrog	cvisionlab.com	info@cvisionlab.com	(903) 464-7047	Custom software development	Artificial Intelligence					
Cyberprotect	Moscow	cyberprotect.ru	info@cyberprotect.ru	(903) 203-2299	Information security solutions						
Data East	Novosibirsk	dataeast.com	support@dataeast.com	(383) 332-0320	Navigation and geographic information systems	Artificial Intelligence; Big Data & BI; Smart City					
DDoS-Guard	Rostov-on- Don	ddos-guard.net	info@ddos-guard.net	(495) 215-0387	Information security solutions	Artificial Intelligence					
Development Center SAPR	Nizhny Novgorod	k3info.ru	sale@k3info.ru	(831) 435-2539	Replicated enterprise (institution) management, document of automation,						

Company	Head office location	Web	E-mail	Phone	Specialization	Expertise in areas corresponding to global technological trends
Diasoft	Moscow	diasoft.ru	pr@diasoft.ru	(495) 780-7575, (495) 789-9339	Software development for the financial and other industries; custom software development; enterprise resource planning (ERP platform); development of basic software (DBMS, programming tools)	Business processes management, visual analytics, Big Data, Al, ML
	ASOFT	it has accumulat	ted a unique experien IT systems for custom	ce in developme	utions. During its 31-yea nt, implementation and nt industries, with the m	support of
		communication	s industry. Its product outers and Databases,	ts are listed in the	pany for the Russian info e Unified Register of Rus zed by Gartner, IDC, Forr	sian Programs for
					es in Saint Petersburg, Y e in Germany and a subs	-
Digital Design	Saint- Petersburg	digdes.ru	info@digdes.com	(812) 346-5833	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other); Custom software development	Artificial Intelligence; Digital Workplace
DZ SYSTEMS	Moscow	dzsystems.com	sales@dz.ru	(495) 225-7693	Mobile applications; Custom software development	Artificial Intelligence; Big Data & BI; Smart City
Econophysica	Tomsk	econophysica.com	conactus @econophysica.com	(3822) 900-601 ext: 1003	Custom software development; Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	Artificial Intelligence; Big Data & BI; Smart City
EC-Tavrida	Simferopol	ec-tavrida.ru	ec-tavrida@yandex.ru	(978) 780-6700	Custom software development	
Edelink	Saint- Petersburg	edelink.ru	info@edelink.ru	(812) 507-3804	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	PropTech

Company	Head office location	Web	E-mail	Phone	Specialization	Expertise in areas corresponding to global technological trends				
e-legion	Saint- Petersburg	e-legion.ru	anna.krasavtseva @e-legion.com	(981) 844-4060	Mobile applications; Custom software development	Big Data & BI; IoT; Smart City				
ErmineSoft ltd.	Novosibirsk	erminesoft.com	denis@erminesoft.ru	(913) 926-2697	Custom software development; Website designing	AR & VR Development; Artificial Intelligence				
Etton Grup	Kazan	etton.ru	info@etton.ru	(800) 100-0815	Custom software development	Artificial Intelligence; Big Data & BI; Blockchain Technology; Smart City				
Evavision	Ekaterinburg	evavision.tv	sales@evavision.tv		Development of a broadcasting control system for a network of video monitors of a new generation	IoT; Smart City				
FAYGROUP	Moscow region	faygroup.ru	info@faygroup.ru	(964) 786-6003	Custom software development	IoT				
Fidesys LLC	Moscow	cae-fidesys.com	v.a.levin@mail.ru	(495) 177-3618	Scientific researching; Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	Artificial Intelligence; IoT; Smart City				
FlexSoft	Moscow	flexsoft.com/about	info@flexsoft.com	(495) 788-0325	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	Big Data & BI				
Fogstream	Khabarovsk	fogstream.ru	org@fogstream.ru	(4212) 909-809	Custom software development	Blockchain Technology; Smart City				
Foresight	Moscow	fsight.ru	info@fsight.ru	(495) 137-5498	BI-systems	Artificial Intelligence, Big Data & BI, IoT, Smart City				
fore	sight.	and mature solu		and corporate n	company delivers to the i nobility development – F					
					e, supports various data leling and forecasting teo					
		The company ha Management, an companies in cor	data sources, includes machine learning, big data, modeling and forecasting technologies. The company has also developed such products as Foresight Budgeting, Foresight Investment Management, and FlyBI used for business analysis on-the-go. Company products are used by companies in corporate, state and banking sectors. The Foresight partner network includes more than 60 Russian IT companies.							

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Format Koda	Saint- Petersburg	formatkoda.ru	info@formatkoda.ru	(812) 336-5533	Custom software development; Mobile applications	Artificial Intelligence, Big Data & BI, IoT, Smart City
Qo	<b>рмат</b> ₀да>	transformation The company le retail digitalizat and data, mach	advisory services. verages its agile techno ion, web content mana	ological excellen gement & eCom rise data manag	ing, software enablemer ce to efficiently deliver co merce, healthcare IT & re gement. Software engine ata Implementation.	omplex projects in eal world evidence
GDC Services	Usady town (Tatarstan)	icl-services.com	pr@icl-services.com	(800) 333-9870	Custom software development; Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	AR & VR Development; Artificial Intelligence; Big Data & BI; IoT
Gektor	Moscow	gektorstroi.ru	support@gektorstroi.ru	(495) 510-1545	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	
GEOCAD plus	Novosibirsk	geocad.ru	info@geocad.ru	(383) 352-1333	Navigation and geographic information systems	AR & VR Development; Smart City
Geoscan Group	Saint- Petersburg	geoscan.aero	info@geoscan.aero	(812) 363-3387	Professional unmanned technologies; Embedded software (equipment, devices)	AR & VR Development; Artificial Intelligence; IoT
Global Rus Trade	Moscow	globalrustrade. com/ru	info @globalrustrade.com	(495) 256-2625	International trade Marketplace	
GLOLIME LTD	Saint- Petersburg	glolime.ru	info@glolime.com	(812) 334-9384	Specialized tablet computers and development of a management system for enterprises and organizations on their basis	IoT
GS Labs	Saint- Petersburg	gs-labs.ru	alexey.goilo@gs-labs.ru	(911) 000-3347	Integrated solutions for the formation of ecosystems for the creation and delivery of digital products based on proprietary technologies	loT; Smart City
HARMAN Connected Services	Nizhny Novgorod	harman.ru, harman.com	Olga.Sheinfeld @harman.com	(905) 664-1155	Custom software development	AR & VR Development; Artificial Intelligence; Big Data & BI; IoT; Smart City

Company	Head office location	Web	E-mail	Phone	Specialization	Expertise in areas corresponding to global technological trends
IBS InfiniSoft	Moscow	ibs-infinisoft.ru	ymaksimenko@ibs.ru; info@ibs-infinisoft.ru	(495) 967-8080; (495) 967-8081	Custom software development; Mobile applications; Website designing	
IBS	InfiniSoft	and big number customers in Ru and digital capa IBS InfiniSoft op IT specialists. It expertise, helpin Financial service other industries	of projects providing to assia and abroad. We for abilities, combining stra- berates efficiently with combines a unique mi ng our clients innovate es, Healthcare, Media a	echnology solu ocus on the busi ategy and result an agile workfo xture of develop in the areas of and Telecommu P, mobile, 1C ar	mpanies with global 30 y tions and drive business ness landscape with ind s-driven software develor rce of 1000+ developers oment excellence and de State administration, Au nications, Retail, Oil and ad web development, as s.	change for ustry knowledge opment. and other ep industry tomotive industry, Gas, Energy, and
Ideas World	Simferopol	iw-group.pro	info@iw-group.pro	(800) 301-0762	Custom software development; Mobile applications	
INEC-IT	Moscow	inec.ru	support@inec.ru	(495) 786-2230	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	
InetPartners	Moscow	callpy.com	business @inetpartners.ru	(926) 613-4870	Custom software development	Big Data & BI; IoT
Infinity Video Soft	Tomsk	videograce.ru	contact @videograce.com	(903) 953-3424	Basic software development (DBCS, OS, office applications, virtualization tools, programming languages and tools)	
INFOPRO	Moscow	info-pro.ru	post@info-pro.ru	(800) 600-2401	Custom software development	Artificial Intelligence; Big Data & BI; Blockchain Technology; IoT; Smart City
Information Systems and Services	Novosibirsk	isands.ru	info@isands.ru	(800) 775-1986	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	Artificial Intelligence; Big Data & BI; IoT; Smart City
	МАЦИОННЫЕ ИЫ И СЕРВИСЫ	platform IS.PRO based on micros	METHEUS to create ap	plications quick show solid per	hat uses its own low-coo dy and easily. The comp formance in handling th ses.	any's products are

Company	Head office location	Web	E-mail	Phone	Specialization	Expertise in areas corresponding to global technological trends
INFORM- TEKHNIKA	Moscow	minicom.ru	inf@infotek.ru	(495) 662-7321	Developer and manufacturer of modern means of communication	
Inline Group	Voronezh	inlinegroup-c.ru	contacs @inlinegroup-c.ru	(910) 749-8328	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	AR & VR Development
Innotech	Moscow	inno.tech	info@inno.tech	(800) 500-3333	Custom software development	Artificial Intelligence; Big Data & Bl
•• 🗭 IN	INOTECH	have been provi Group builds pa comprehensive systems. Moreov	ding cutting edge softw rtnerships with leading solutions for front and	ware solutions g companies in back offices, m rries out custor	gh-tech IT company. Sind for business digitalizatio the financial sector, offe odern fintech products n-made technological pr ansformation.	n. Innotech ring them and big data
Inostudio Solutions	Taganrog	inostudio.com	russoft@inostudio.com	(8634) 320-318	Custom software development	AR & VR Development; Artificial Intelligence
INOVENTICA Technologies	Moscow	inoventica-tech.ru	info@inoventica-tech.ru	(495) 646-7308	Information security solutions	
Inreco LAN	Vladimir	inrecolan.com	sergey.pyatigorskiy @inrecolan.com	(492) 244-4090	Custom software development	
Integral	Saint- Petersburg	integral.ru	eco@integral.ru	(812) 740-1100	Stationary software for environmental calculations	
ISGneuro	Moscow	isgneuro.com	info@isgneuro.com	(495) 232-2233	Development, support and development of our own product line of analytical software	Artificial Intelligence; Big Data & BI; IoT
iSpring	Ioshkar-Ola	ispring.com	buh@ispring.ru, valentina.bulygina @ispring.com	(960) 099-0074	Online Training Software	
ISPsystem	Irkutsk	ispsystem.ru	e.lavrenteva @ispsystem.com	(963) 305-0563	Embedded software (equipment, devices); Basic software development (DBCS, OS, office applications, virtualization tools, programming languages and tools); Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	

Company	Head office location	Web	E-mail	Phone	Specialization	Expertise in areas corresponding to global technological trends
IT Pro	Moscow	biqube.ru	dp@itprocomp.ru	(952) 056-1199	Custom software development	Artificial Intelligence; Big Data & BI
ITB LLC	Saint- Petersburg	itb.spb.ru	manager@itb.spb.ru	(812) 335-0145	Information security solutions	
ITC Solutions	Sevastopol	itcsolutions.ru	dm@itcsolutions.ru	(989) 836-9939	Outsourcing/ outstaff architecture, development, system and business analysis, software testing	
ITConstruct	Novosibirsk	itconstruct.ru	office@itconstruct.ru	(383) 375-1277	Website designing	
ITPS	Perm	itps.com	info@itps-russia.ru	(495) 660-8181	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	Artificial Intelligence; Big Data & Bl; IoT
IVA Technologies (IVKS)	Innopolis	iva-tech.ru	info@iva-tech.ru	(495) 134-6677	Developers of innovative IT solutions for building a modern digital infostructure	Artificial Intelligence
IZZZIO	Moscow	izzz.io/ru	info@izzz.io	(905) 520-3080	Custom software development	Artificial Intelligence; Big Data & BI; Blockchain Technology; IoT
KAMIS	Saint- Petersburg	kamis.ru	info@kamis.ru	(812) 274-3522	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	Smart City
KODEKS	Saint- Petersburg	kodeks.ru	nishonov@kodeks.ru	(812) 740-7887	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	AR & VR Development; Artificial Intelligence
LANIT- TERCOM	Saint- Petersburg	lanit-tercom.ru	contact @lanit-tercom.com	(812) 922-2091	Custom software development	AR & VR Development; Artificial Intelligence; Big Data & BI; Blockchain Technology; Smart City
Lartech	Saint- Petersburg	lar.tech	info@lar.tech	(812) 339-4501	Embedded software (equipment, devices)	IoT; Smart City

Company	Head office location	Web	E-mail	Phone	Specialization	Expertise in areas corresponding to global technological trends
Lexema	Ufa	lexema.ru	info@lexema.ru	(347) 284-7000	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	Artificial Intelligence; Big Data & BI
Lotsiya	Moscow	loodsen.ru	welcome@loodsen.ru	(495) 730-2023	Custom software development; Mobile applications; Website designing	Big Data & Bl
Luxms Group	Saint- Petersburg	luxmsbi.com	sales@luxmsbi.com	(812) 974-7403	Basic software development (DBCS, OS, office applications, virtualization tools, programming languages and tools)	Artificial Intelligence; Big Data & BI; IoT; Smart City
Makves	Moscow	makves.ru	marketing@makves.ru	(495) 150-5406	Information security solutions	
MATSBKT-SEZ	Moscow	interpolymech. com	nnevskaya@global-rc.ru	(916) 609-0790	Custom software development; Embedded software (equipment, devices)	AR & VR Development; Artificial Intelligence; IoT
Megaputer Intelligence	Moscow	megaputer.ru	info@megaputer.ru	(499) 753-0129	Basic software development (DBCS, OS, office applications, virtualization tools, programming languages and tools)	Artificial Intelligence; Big Data & BI
Microolap Technologies	Tatarstan	microolap.ru	formal@microolap.ru	(926) 326-9277	Information security solutions	Network Traffic Analysis (NTA)
Monolit-Info	Saint- Petersburg	monolit.com	alex@monolit.com	(921) 937-8542	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other); Custom software development	Big Data & Bl
Motiware	Belgorod	motiw.ru	office@motiw.ru	(472) 278-0000	Custom software development; Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	

Company	Head office location	Web	E-mail	Phone	Specialization	Expertise in areas corresponding to global technological trends
Moy Klass	Ekaterinburg	moyklass.com	info@moyklass.com	(495) 108-5239	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	Big Data & BI
New space	Moscow	newspacecorpora tion.com	info @newspacecorporation. com	(928) 165-3302	Custom software development; Website designing	Big Data & BI; Blockchain Technology; IoT; Smart City
Nexign	Saint- Petersburg	nexign.com/ru	Yekaterina.Petrova @nexign.com	(812) 326-1299	BSS solution provider	IoT
NitrosData	Moscow	nitrosdata.ru	info@nitrosbase.com	(495) 101-4324		Big Data & Bl
NooSoft	Bryansk	noosoft.ru	lv@noosoft.ru	(913) 271-3993	Custom software development	Artificial Intelligence; Big Data & BI
Nord Clan	Ulyanovsk	nordclan.com	welcome @nordclan.com	(499) 404-0943	Custom software development; Mobile applications; Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	Artificial Intelligence
NotiSend	Tomsk	notisend.ru			Marketing platform for business	
Novosibirsk Scientific and Technological Center	Novosibirsk	nntc.pro	ematveeva@nntc.pro	(923) 248-2615	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	Artificial Intelligence; Big Data & BI
NTP-DIP	Saint- Petersburg	ntp-dip.ru	dip_zenit@mail.ru	(911) 928-8478	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	
OFT	Bryansk	oft32.ru	oft@inbox.ru	(920) 602-3335	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	

Company	Head office location	Web	E-mail	Phone	Specialization	Expertise in areas corresponding to global technological trends
Open Solutions	Penza	osinit.com	info@osinit.com	(800) 250-9669		AR & VR Development; Artificial Intelligence; Big Data & BI; Blockchain Technology; IoT; Smart City
Piter-Soft	Saint- Petersburg	piter-soft.ru	info@piter-soft.ru	(812) 333-0860	Custom software development	
POWWWER	Novosibirsk	powwwer.io	a.mitasov@powwwer.io	(383) 318-1043	Custom software development; Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	Blockchain Technology; IoT
Project	Moscow	project-llc.ru	sdmitriy@project-llc.ru	(985) 890-0000	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	Artificial Intelligence; Big Data & BI
PROMT	Saint- Petersburg	promt.ru	julia.epiphantseva @promt.ru	(812) 655-0350	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	Artificial Intelligence; Big Data & BI
Prostorlab	Moscow	prostorlab.com	korolev@enersys.ru	(926) 296-0502	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	IoT; Smart City
PROTEI	Saint- Petersburg	protei.ru	sales@protei.ru	(812) 449-4727	Embedded software (equipment, devices)	Big Data & BI; IoT; Smart City
RAIDIX	Saint- Petersburg	raidix.ru	request@raidix.com	(812) 622-1680	Basic software development (DBCS, OS, office applications, virtualization tools, programming languages and tools)	Artificial Intelligence; Big Data & BI; IoT; Smart City

Company	Head office location	Web	E-mail	Phone	Specialization	Expertise in areas corresponding to global technological trends		
Raketa	Moscow	raketa.world	hello@raketa.travel	(925) 655-9007	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	Big Data & Bl		
	9	"Raketa" Company is a developer of the digital platform and the mobile application for business trips and expense management. Our solution helps commercial and government companies save up to 30% of business travel budgets and up to 90% of employees' working time, makes the process of organizing business trips and expense management fully digital and automated.						
RAK	KETA		e winner of the prestigi 22 and the best Online		ness Travel Awards in the 2018.	e Technology		
				· · · · · · · · · · · · · · · · · · ·	ostok, Yekaterinburg, Nov			

Almaty, Nur-Sultan, Bishkek. The staff has 100 employees. Now we have more than 300 largest companies from Russia and abroad in our portfolio.

RDTEX	Moscow	rdtex.ru	marketing@rdtex.ru	(495) 995-0999	IT Services	Artificial Intelligence; Big Data & BI; IoT
red_mad_ robot Tomsk	Tomsk	redmadrobot.ru	ee@redmadrobot.com	(909) 542-2169	Custom software development; Website designing; Mobile applications	Blockchain Technology; IoT
Redline	Tomsk	redlg.ru	info@redlg.ru	(999) 619-7912	Website designing; Mobile applications	IoT
Reksoft	Moscow	reksoft.ru	info@reksoft.ru	(495) 926-1771	Custom software development	Artificial Intelligence; Big Data & BI; Blockchain Technology; IoT; Smart City
Relex	Voronezh	relex.ru	market@relex.ru	(473) 271-1711	Basic software development (DBCS, OS, office applications, virtualization tools, programming languages and tools)	Big Data & Bl
Renga	Saint- Petersburg	rengabim.com	info@rengabim.com	(812) 703-1011	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	
RNDSOFT	Rostov-on- Don	rnds.pro	es@rnds.pro		Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other); Custom software development	Big Data & BI; Blockchain Technology; Smart City

Company	Head office location	Web	E-mail	Phone	Specialization	Expertise in areas corresponding to global technological trends
RTC ARGUS	Saint- Petersburg	argustelecom.ru	t.stakanova @argustelecom.ru	(921) 781-2612	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	Big Data & Bl
S.C.A.T	Krasnodar	skat-vending.com	info@skat-vending.com	(918) 199-3891	Custom software development	Artificial Intelligence
SatvaSpace	Tver	satvaspace.com	s.abdulova @satvaspace.com	(921) 655-6958	Custom software development	Artificial Intelligence; IoT
SDI SOFT	Moscow	sdisoft.ru	info@sdisoft.ru	(499) 495-1042	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	NRI – Network Resource Inventory
SearchInform	Moscow	searchinform.ru	info@searchinform.ru	(495) 721-8406	Information security solutions	Artificial Intelligence; Big Data & BI
SEARCH	N SECURITY				nation security solutions rnal threats protection:	
		list of products Risk Monitor, Se ProfileCenter an SearchInform p processed and t from the Center Security Service	includes instruments f earchInform DLP, Searc nd TimeInformer as we roducts are suitable fo cransferred. The compo r for Licensing, Certific	or complex inte hInform SIEM, S ell as informatio r companies of a etence of the con ation and Protection, as well as	nation security solutions rnal threats protection: 5 SearchInform FileAudito n security services using all industries, where dat mpany is confirmed by a ction of State Secrets of t by licenses from the Fed	SearchInform r, SearchInform ; its own products. a is stored, perpetual license the Federal
		list of products Risk Monitor, Se ProfileCenter an SearchInform p processed and t from the Center Security Service	includes instruments f earchInform DLP, Searc and TimeInformer as we roducts are suitable fo transferred. The compo for Licensing, Certific e of the Russian Federa	or complex inte hInform SIEM, S ell as informatio r companies of a etence of the con ation and Protection, as well as	rnal threats protection: SearchInform FileAudito n security services using all industries, where dat mpany is confirmed by a ction of State Secrets of	SearchInform r, SearchInform ; its own products. a is stored, perpetual license the Federal
INFORMATIO	N SECURITY	list of products Risk Monitor, Se ProfileCenter an SearchInform p processed and t from the Center Security Service for Technical an	includes instruments f earchInform DLP, Searc nd TimeInformer as we roducts are suitable fo transferred. The compo for Licensing, Certific e of the Russian Federa id Export Control of Ru	or complex inte chinform SIEM, S ell as informatio r companies of a etence of the con ation and Protec ition, as well as ssia.	rnal threats protection: SearchInform FileAudito n security services using all industries, where dat mpany is confirmed by a ction of State Secrets of t by licenses from the Fed	SearchInform r, SearchInform ; its own products. a is stored, perpetual license the Federal
Secret	Moscow Saint-	list of products Risk Monitor, Se ProfileCenter an SearchInform p processed and t from the Center Security Service for Technical an secretgroup.ru setere.com	includes instruments f earchInform DLP, Searc and TimeInformer as we roducts are suitable for transferred. The compo- r for Licensing, Certific e of the Russian Federa and Export Control of Ru info@secretgroup.ru info@setere.com	or complex inte chinform SIEM, S ell as informatio r companies of a etence of the con ation and Protect tion, as well as ssia. (495) 109-2950 (812) 921-0977	rnal threats protection: 3 SearchInform FileAudito In security services using all industries, where data mpany is confirmed by a ction of State Secrets of the by licenses from the Fed Information security solutions Basic software development (DBCS, OS, office applications, virtualization tools, programming languages and tools); Custom	SearchInform r, SearchInform ; its own products. a is stored, perpetual license the Federal eral Service Blockchain Technology operating systems ducts: a software
Secret	Moscow Saint- Petersburg	list of products Risk Monitor, Se ProfileCenter an SearchInform p processed and t from the Center Security Service for Technical an secretgroup.ru setere.com SETERE (LLC "T based on LINUX package for the optical text reco	includes instruments f earchInform DLP, Searc and TimeInformer as we roducts are suitable for transferred. The compo- r for Licensing, Certific e of the Russian Federa and Export Control of Ru info@secretgroup.ru info@setere.com BI") is a software deve t. At the moment, the co rapid deployment of ro ognition system".	or complex inte chinform SIEM, S ell as informatio r companies of a etence of the con ation and Protect ition, as well as ssia. (495) 109-2950 (812) 921-0977 (812) 921-0977	rnal threats protection: 3 SearchInform FileAudito In security services using all industries, where data mpany is confirmed by a ction of State Secrets of the by licenses from the Fed Information security solutions Basic software development (DBCS, OS, office applications, virtualization tools, programming languages and tools); Custom software development my for users of domestic eased two of its own pro	SearchInform r, SearchInform ; its own products. a is stored, perpetual license the Federal eral Service Blockchain Technology operating systems ducts: a software "SETERE OCR

Company	Head office location	Web	E-mail	Phone	Specialization	Expertise in areas corresponding to global technological trends
SIGMA messaging	Saint- Petersburg	sigmasms.ru	integration @sigmasms.ru	(904) 615-4608	Content provider for A2P text and multimedia messaging	
SimbirSoft	Ulyanovsk	simbirsoft.com	request @simbirsoft.com	(800) 200-9924	Custom software development	Artificial Intelligence; Big Data & BI; Blockchain Technology; IoT
Simb	irSoft	created more th healthcare, logi systems, mobile	an 1000 IT products stics, industry, etc. W a apps, machine learr	for business grow /e develop IT solu ning and data scie	d testing services. Since th and development in tions for work automati ence systems for custom own staff of 1300 emplo	fintech, retail, ion, high-load ers from Russia,
		rating. Growth	ates and service qua	lity are confirmed	Russia and in the Softw I by international award Iviser, and Tagline rating	ls and Global
SIMETRA	Saint-	simetragroup.ru	moscow	(812) 702-1335	Custom software	Smart City; Big Data &

SIMETRA	Saint- Petersburg	simetragroup.ru	moscow @simetragroup.ru	(812) 702-1335	Custom software development; Navigation and geographic information systems; Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	Smart City; Big Data & Bl; Artificial Intelligence
Simtech Development	Ulyanovsk	simtechdev.ru	sales@simtechdev.org	(800) 550-8510	Custom software development	

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      SINCLEDENT
      Simtech Development is a developer of eCom solutions for the transitioning of business to a new level of digitalization.

      We have been converting sales to online for more than 17 years. Since then, we have implemented more than 5,000 projects, including the launch of highly loaded online stores and marketplaces "from scratch", as well as modifications of existing complex eCom projects. We work with corporations, financial and trading companies, manufacturing enterprises and local businesses.

      We work in the in-house development format, implementing projects by specialists of our own.

      Furthermore, our operation is in accordance with the requirements of the international standard ISO 9001:2015.

      SKB Kontur
      Keaterinburg

      kontur.ru
      (800) 500-5080
      Replicated enterprise
      Artificial Intelligence;
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(institutio document design an process sy (ERP, CRM EDMS, CAI other); Ba developm OS, office virtualizat	, ECM, D, APCS and sic software ent (DBCS, applications, ion tools, ning languages
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Company	Head office location	Web	E-mail	Phone	Specialization	Expertise in areas corresponding to global technological trends
SkyDNS	Ekaterinburg	skydns.ru		(812) 385-7421	Information security solutions	Big Data & Bl
Smart Analytics	Perm	sm-analytics. com.ru	eugenia.shadrina @sm-analytics.com	(964) 190-3412	Custom software development	Big Data & Bl
Smart Design	Saint- Petersburg	smddev.com	vitaly.tishkov @smddev.com	(921) 932-7150	Custom software development	Artificial Intelligence; Big Data & BI; IoT
Smartilizer Rus	Saint- Petersburg	smartilizer.ru	evgeny.filippov @smartilizer.ru	(921) 323-1370	Custom software development	Artificial Intelligence
SMS- Information technologies	Samara	sms-it.ru	info@sms-it.ru	(846) 205-7900	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	loT
Soft Company	Moscow	softwarecom.ru	info@softwarecom.ru	(495) 983-0548	Custom software development	Big Data & BI; Blockchain Technology
SoftLab-NSK	Novosibirsk	softlab-nsk.ru	administration @softlab-nsk.com	(383) 363-0462	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other); Custom software development	AR & VR Development
SOLVO	Saint- Petersburg	solvo.ru	sales@solvo.ru	(812) 606-0555	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	Artificial Intelligence; Big Data & BI
Sopos	Saint- Petersburg	einsur.ru	info@einsur.ru	(812) 507-6780	Custom software development; Tender platform; Health insurance expertise	
SPC KRUG	Penza	krug2000.ru	krug@krug2000.ru	(841) 249-9775	Development of software and hardware complexes and industry solutions in the field of industrial automation	IoT
Speech Technology Center	Saint- Petersburg	speechpro.ru	stc-spb @speechpro.com	(812) 325-8848	Embedded software (equipment, devices)	Artificial Intelligence; Big Data & BI; Smart City
SPHAERA	Moscow	sphaera.ru	info@sphaera.ru	(495) 672-7076	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	Big Data & Bl; Smart City

Company	Head office location	Web	E-mail	Phone	Specialization	Expertise in areas corresponding to global technological trends
SSP SOFT	Moscow	ssp-soft.com	sales@ssp-soft.com	(495) 975-9390	Custom software development	
$\langle$		of complex, lar	ge-scale business digit	tal projects in ba	e provider for the impl nking and financial sec ngineering and other a	ctor, retail,
SSP	SOFT		nies that have made sig		2021» prize in the cate ss in the field of softwar	
		to customer`s		management ap	high quality requireme proaches allow SSP SO	
		SSP SOFT oper other EAEU cou		leration, Republi	ic of Belarus, Republic o	of Kazakhstan and
Statanly Technologies LLC	Saint- Petersburg	statanly.com	sergey@statanly.com	(921) 875-2396	Custom software development	Artificial Intelligence; Big Data & Bl; Smart City
Supl.biz	Tomsk	supl.biz	info@supl.biz	(800) 600-5831	Services based on our own business platform Supl.biz	Artificial Intelligence
SWDC RTSoft	Moscow	rtsoft.ru	rtsoft@rtsoft.ru	(495) 967-1505	Embedded software (equipment, devices); Custom software development	AR & VR Development; Artificial Intelligence; IoT; Smart City
SWTECNN LLC	Nizhny Novgorod	swtec.group	Artem.Kalachev @swtecnn.com	(960) 173-8444		
Syncretis	Saint- Petersburg	Syncretis.com	info@syncretis.com	(812) 611-0686	Custom software development	Artificial Intelligence; Big Data & BI; Blockchain Technology
T1	Moscow	t1.ru	info@t1.ru	(495) 727-0985	Custom software development; System integration; Consulting	Big Data & Bl; IoT
TEAM FORCE	Moscow	teamforce.ru	welcome @teamforce.ru	(495) 646-8040	Custom software development; Mobile applications; Website designing	Human capital
<b>TEAM</b> FORCE		TEAM FORCE is the pioneer of SmartStaffing and the leader of the TEAM FORCE Alliance, where IT teams have been strengthening each other via project-based rearrangement of required competencies since 2008. Our Alliance, as an industry partnership, is focused on solving the challenges of the largest corporate customers.				

Company	Head office location	Web	E-mail	Phone	Specialization	Expertise in areas corresponding to global technological trends
Technoservice	Moscow	techsrv.ru	info@techsrv.ru	(499) 704-3425	Custom software development	Big Data & BI; IoT; Smart City; AMS (Association Management Software); ESB (enterprise service bus)
TERMIKA	Moscow	olimpoks.ru	info@termika.ru	(495) 956-2101	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	
TLK	Novosibirsk	youlk.ru	info@youlk.ru	(383) 209-3430	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	Artificial Intelligence; IoT; Smart City
Tract-Soft	Saint- Petersburg	tract-soft.ru	ns@tract.ru	(812) 490-7799	Embedded software (equipment, devices); System for broadcasting automation and planning the radio content	
Transset	Moscow	transset.ru	inform@transset.ru	(499) 649-4668	Custom software development; Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	Artificial Intelligence; Big Data & Bl; IoT; Smart City
TRONIC	Moscow	tronicint.ru	info@tronicint.ru		Supply of technological solutions for the production of microelectronics and relevant IT solutions for various sectors of the economy	Big Data & BI; Smart City
Unlim-Soft	Tyumen	unlim.group/ unlim-soft	m.zemlyanoy @unlim.group	(345) 228-5052	Custom software development	Artificial Intelligence; IoT
Usetech	Moscow	usetech.ru	info@usetech.ru	(495) 660-5048	Custom software development	Artificial Intelligence; Big Data & BI; Blockchain Technology; IoT

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Company	Head office location	Web	E-mail	Phone	Specialization	Expertise in areas corresponding to global technological trends
Vinteo	Krasnodar	vinteo.ru	info@vinteo.ru	(800) 333-4016	Basic software development (DBCS, OS, office applications, virtualization tools, programming languages and tools)	
VIDEO COMM	ITEO	(telepresence) a on the internati compatibility w	and a provider of video onal ITU-T standards a ith third-party videoco at the highest govern	engineering se nd H.323 and Sl nferencing solu	ferencing software and e rvices. The Vinteo produ IP protocols and provide rtions. Vinteo products a anizing national program	cts are based the maximum re used for holding
		in the official lis	t of analogues recomn	nended by the R	e Unified Register of Rus ussian Ministry of Digita popular foreign video co	l Development,
VR Concept	Moscow	vrconcept.net	info@vrconcept.net	(495) 212-1147	Replicated enterprise (institution) management, document of automation, design and production process systems (ERP, CRM, ECM, EDMS, CAD, APCS and other)	AR & VR Development; Smart City
Waha	Moscow	wavesenterprise.	sales		Custom software	
Web3 Integrator		com	@wavesenterprise.com		development	Blockchain Technology; IoT
	Rostov-on- Don			(863) 303-2038		0, .