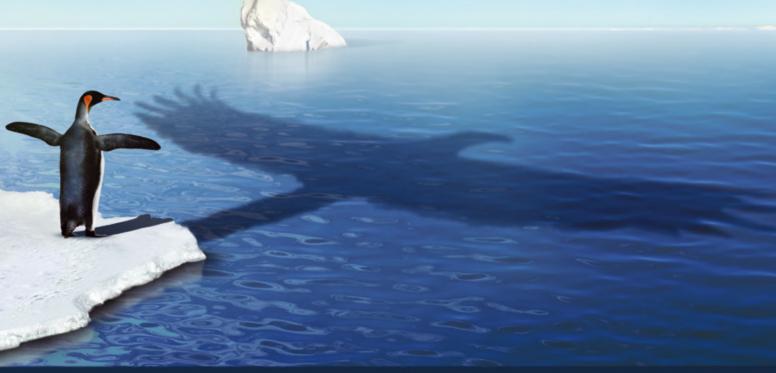


RUSSIAN SOFTWARE DEVELOPING INDUSTRY AND SOFTWARE EXPORTS

9th annual survey

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Dear colleagues!

Let me introduce results of the latest (the 9th in a row) industry survey on the export of software and of software development services from Russia.

The survey was conducted by RUSSOFT (non-profit partnership of software development companies) in February-April 2012 where more than 120 market players took part.

As RUSSOFT conducts the research annually using the same methodology, we can track the dynamics of industry development and evaluate its positions in the global market. We can also identify long-term and medium-term tendencies and make forecast for the further course of events.

The core of respondents is composed of RUSSOFT members who represent practically all Russian cities with large concentration of software development business, but also include a number of leading Ukrainian and Belorussian companies.



During the last year there were no critical changes in the world economy. That allowed the Russian software development industry to increase export up to 22% and to reach 4 billion dollars in sales of software and of software development services abroad. The competences and the experience in the sphere of high technologies, the ability to find non-standard solutions are the industry strengths. It is pleasant to see that business skills are added to the technical competences. It is reflected in consecutive strengthening positions of the industry leaders in the international ratings.

Russia remains a country with a huge human potential in the sphere of information technologies. The consequences of the difficult demographic situation in the country during the 1990-ies are observed now and they create additional problems for recruiting qualified personnel to the growing industry. Nevertheless, the results of the survey testify positive expectations of the market players which allows to predict continuing growth by 20%–25% in the next two years.

Taking the opportunity, I would like to express profound thanks to Dmitry Zhelvitsky from Open Systems Publications who has done great analytical work; to Confirmit, Toy-Opinion and Fort M which assisted the survey as well as to prof. Andrey Terekhov from the St. Petersburg State University who has strongly assisted in the report editing.

We are very grateful to the Association of Computer and Information Technology Companies (APKIT) and to our sponsors without whom it would be impossible to perform such a large-scale project.

Many thanks to all participants of the survey that provided information on their respective companies. Altogether we took one more step on the way of promoting the relevant information on the Russian software development industry which makes it more open for the Russian and for the Global market.

With my highest estimations, Publishing Editor RUSSOFT Association President Valentin Makarov





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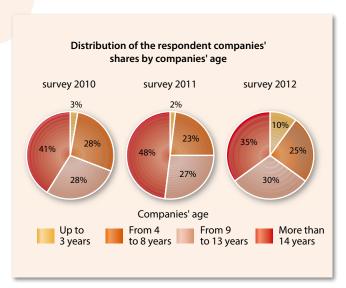
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METHODOLOGY



The total research (which the RUSSOFT Association conducts annually since 2004) traditionally begins with polling a regularly updated database of 1400 Russian companies and organizations which are engaged in software development. The survey was carried out by two companies — Toy-Opinion and Fort M, which are both specialized in the marketing research. We have also used the Confirmit polling technologies for collecting questionnaires. During the survey, companies which have had export contracts — irrespective of their export share in the total amount of sales — were selected. As a result, 127 duly filled questionnaires have been collected.

The structure of the polled companies array in comparison to the previous research has changed, but as a whole it does not prevent from comparing poll results obtained in the last 2 years for revealing available trends. Besides a relative change in numbers in this or that respondent group in certain cases reflects the real processes going on in the software branch. Therefore for example it is possible to note a sharp increase of young companies' share (with the work term in the market up to three years) from 2% to 10%. According to venture companies and investment funds, after 2008 a considerable increase in the number of startups has been observed (according to some information — manyfold increase).



Prevalence of Moscow and St. Petersburg companies in the total number of respondents remains the same since 2005. However since 2010 their share (by number of companies) exceeded 60% and since then did not fall below this level. First it may be explained by the fact that financial crisis accelerated the process of business consolidation in the Russian software industry (especially it concerns the custom software developers). And the consolidation process was going primarily in favor of businesses from both capitals. One more reason is that conditions for the startup creation and development in Moscow and in St. Petersburg are more favorable than in other regions.

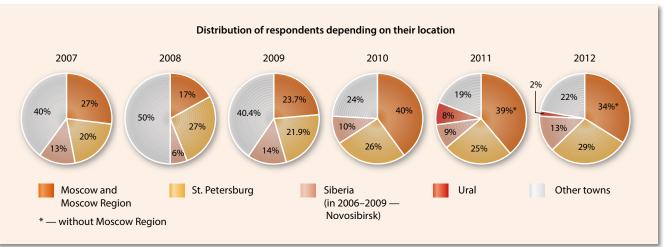
According to the last poll, 63% of the surveyed companies are from two Russian capitals. According to the cumulative income and export revenue of all export companies that took part in the research, the share of Moscow and St. Petersburg is even higher — 87% and 93.4% respectively. It is possible to assume that in reality regional companies have a bigger share (both by number of companies and by the consolidated revenues) but the error in this case does not exceed one per cent.

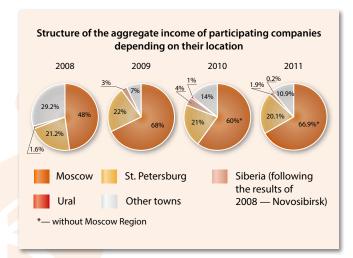
Another feature is the fact that practically all large Russian software development companies were created in Moscow and have their headquarters there. Only few large and well-known companies are located outside Moscow. The share of the leaders in the software export volume among the regional developers is very low too (the exceptions are MERA Networks in Nizhny Novgorod, Alawar in Novosibirsk).

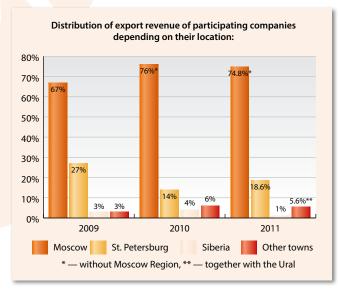
The contribution of regions to the export software development is actually much stronger if we take into consideration the very fact that more than half of large Moscow or St. Petersburg companies have their software development centers in regions (or have at least one regional development center each).

Companies representing 25 Russian cities took part in the survey (by the location of their headquarters or of the main production site). To add that they have remote development centers in 21 cities. Thus, industrial software development for export is conducted at least in 46 Russian cities.

The three leaders by the number of offices (headquarters, remote development centers,







representation and sales offices) remained the same for the entire research period. These are Moscow, St. Petersburg and Novosibirsk. The gap between them is traditionally very big. Considerable superiority of Moscow is partly explained by the fact that many regional companies open their trade missions in the capital. St. Petersburg also receives additional scores due to the location close to the EU border.

Two or three cities appeared in the Top-15 just by chance (by the number of respondents in this research) but you can never say that about Nizhny Novgorod, Rostov-on-Don, Voronezh and Omsk which have been among the leaders for several years already.

Among 15 cities which are leaders in software and IT services export, cities from Ural region are absent. A year before, developers from this region were put into a separate group for the first time. This year, they were so few that similar allocation was meaningless. It is quite possible that software development for export in the Ural area is not developed enough yet to pay a special attention to this region, though it is still IT-export-perspective center because of the high concentration of technical universities there.

The total declared revenue of all interrogated companies was \$1085 million and the export revenue

The rating of the Russian cities by the number of company head offices (headquarters, remote development centers and sales offices)

Place	City	Number of offices		
1	Moscow	54		
2	St. Petersburg	38		
3	Novosibirsk	9		
4–5	Nizhny Novgorod	7		
4–5	Rostov-on-Don	7		
6–8	Voronezh	5		
6–8	Omsk	5		
6–8	Samara	5		
9–12	Izhevsk	4		
9–12	Kolomna	4		
9–12	Krasnoyarsk	4		
9–12	Yaroslavl	4		
13–15	Vladimir	3		
13–15	Kazan	3		
13–15	Tyumen	3		

was \$738 million (68% from the total turnover). When considering structure of the aggregate income and that of export, depending on respondent companies' headquarter location we need to take into account the fact that by 2008–2010 formation of correct Russian software development industry "pyramid" would have come to the end. Just 8% of the respondent companies delivered up to 73% of software and software development service export. At the top of the pyramid there is a group of leaders which naturally turned into the global corporations that have their sales offices in all leading markets and their branched-out network of development centers in Russian regions and in other countries.

The number of interrogated companies with a share of export in the revenue less than 10% was sharply reduced in comparison to the last year but it hardly reflects the real processes in the industry. Most likely this reduction is caused by the change of respondents' quantity and structure. The same applies to the reduction of the share of companies producing software products and ready solutions (from 50% to 22%).

The largest Russian software development companies did not participate in the survey (neither did them in the last years). Information on their financial performance was collected from different sources: mass media publications, companies' press releases and their web sites. In addition, estimations of external industry experts and the data received when communicating with company managers were used (NB - all data on companies' financial performance collected within this research is used for calculation of the cumulative export only and cannot be divulged).

Traditionally, there is no open data on the turnovers of foreign corporations' research centers, which provide cross-border software development services



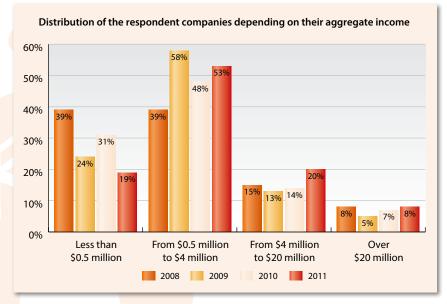
for their parent companies. The assessment of the turnover and aggregate income of such development centers was performed based on the experts' estimations. Experts took into account the available data on the staff amount and structure, the results of interviews with corporations' representatives and

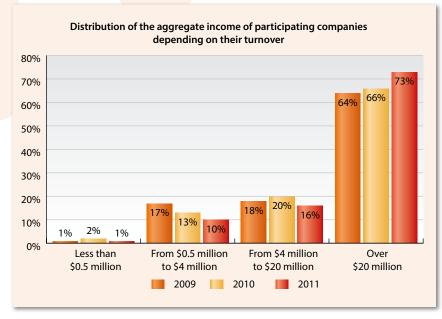
> information of recruiting agencies, which fix mass increase or decrease in the personnel of such centers.

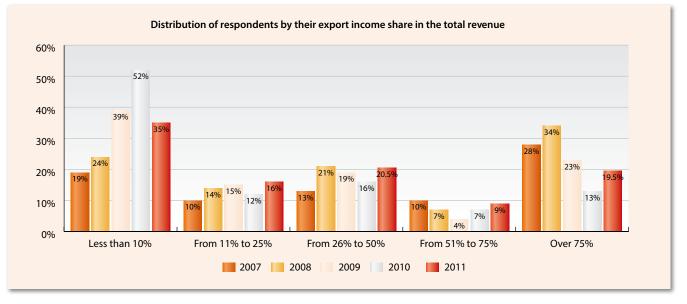
> The results of the survey conducted by the Toy-Opinion JV and RUSSOFT in February-April 2012 constitute the basic information for this research. At the same time, a considerable part of information about the situation in the industry and in the various markets were received from other sources. First, we can mention ratings of reputable analytical agencies, research companies' reports, information from foreign and international software developers associations, publications in Russian (mainly in CNews and Computerworld) and foreign mass media. In this research we also used opinions of experts, of heads of recruiting agencies and of training centers. as well as information received by experts directly during communications with the heads of companies many of whom did not take part in the survey.

> Starting this year, the new and very important section is added to the survey. It is dedicated to the existing and expected potential of the Russian software companies in the world market due to the changes in the market and considering the development of the situation in Russia.

After preparation of the research result report, experts (the heads of active members of the RUSSOFT

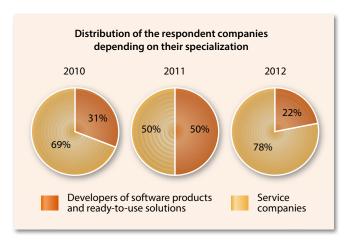






Association) checked the report and drawn conclusions. Besides, the experts commented on some discovered changes and tendencies.

As the questionnaire sent to respondents changes insignificantly and includes the same key indicators for comparing companies' data for several years, it allows revealing tendencies and maintaining the measurement process continuity. This is facilitated by engagement into the process of information collection and report revision of experts who are in charge of the leading RUSSOFT companies and who have been moral authority for the entire industry for many years.



CHAPTER 1.

POSITIONS OF RUSSIA IN THE GLOBAL IT MARKET



RUSSIA IN GLOBAL IT RATINGS

Over the last year, the Russia's place in the various ratings reflecting the level of development and usage of information technologies and also conditions for business changed both for the worse and for the better (slightly more often — for the better). Available changes as well as comparison with ratings of other countries not always look reasonable. In particular, Russia's positions in the second half of the first hundred and sometimes outside this range are doubtful.

Apparently, some experts who created these kind of ratings were mainly guided by publications in the mass media that are not always objective owing to the preservation of stereotypes concerning Russia, to maintaining political games and to creation of an enemy image. However, this orientation as a rule is enforced because the Russian companies, universities and state structures not always aspire to provide information that is absolutely necessary for analysts.

Therefore, not only the taken place but a sharp increase of the Russia's position in some ratings to a greater degree can be explained not by the real progress in any field but by the change of character of information messages received from different channels. For example, just in a year Russia flew up by 32 positions in the world rating of the Electronic government development (E-Government Survey 2012: E-Government for the People) having risen from the 59th to the 27th place. The United Nations publishes this rating, it reflects the readiness and the feasibility of the state agencies from 193 countries to use ICT to provide the state services.

Certainly, the Russian government made some decisions that contributed to the increased use of IT and the Internet for the interaction between various departments and the government institutions with the citizens. In particular, a united portal for the state services was created. However, it is hard to say that it is already operating with the full functionality support. Many services are not transformed to the electronic form yet. The works on the project are constantly performed and there is a progress, but it cannot be so great in such a short term.

In reality, Russia jumped from one category of the rating to another — from countries with emerging economics to the economically developed countries — in a year.

Moreover, in this rating countries are ranged based on the weighed index of estimates on three main components (scale and quality of online services, level of ICT-infrastructure development and human capital) and it is hard to change them in a year to overtake about thirty countries. Apparently, this breakthrough is caused by efforts on the E-government creation that were undertaken in Russia within several years, but analysts got information about them and received the results no earlier than a year ago.

In E-Government Survey 2012 ranking, Russia takes the 37th place by the index of online services development, the 30th place by the level of the ICT-infrastructure development and the 44th place by the human capital. All three indexes were improved.

The less significant increase took place in a similar ranking of the International Telecommunication Union (ITU) that reflects the level of the information communication technologies development in 152 countries. In two years, Russia moved up from the 49th place to the 47th place. Though methods of the United Nations and the International Telecommunication Union differ, one country should not take the 27th place in one ranking and the 47th place in another. Especially, as the ITU analysts put Russia on the 32nd place by the availability of ICT services that depend on the price level and the gross domestic product. In Russia, the ICT services access costs 1.1% from the gross national income (in 2008 — 1.3%). It can be assumed that the ITU experts did not have enough information about usage of the ICT in Russia and about skills of Russians in that field.

In the ICT report of the World Economic Forum, Russia is entirely on the 56th place from 142 countries. According to the comments made by the experts who created the rating, the methodology changed greatly (now the index to a greater degree depends on an assessment of the ICT impact on the competitiveness) and that comparison with the country position from the previous year does not make sense. Therefore, the Russia's rise from the 77th to the 56th place means nothing. Russia is ranked high by the adult population literacy rate (the 9th place) and the number of cellular subscribers (the 7th place), but the country is pulled down by the following criteria: usage of new technologies by the companies (the 130th place), protection of intellectual property (the 126th place), efficiency of the judicial system (the 123 place), the impact of the ICT on the state policy (the 94th), state online services (the 66th place). Apparently, problems attributed to Russia are slightly exaggerated, because, for example, other sources (e.g., BSA) testify that the situation in the field of the intellectual property protection in Russia is better. In addition, in 2005–2011 Russia proved to be the absolute world leader in the speed of decrease of the SW piracy level. Therefore, the place at the end of the list does not look deserved.

Low places on the level of ICT development are badly agreed with the first places that traditionally are a priori given to Russia on the amount of spam generated in the country, on the number of cyber attacks and computer viruses. This contradiction is practically not taken into consideration though obviously there should be relationship between the level of ICT development in the country and the level of technological capability of its inhabitants to create malicious software. Unless, of course, you draw the fantastic picture according to which almost all

computers and experts in Russia are involved in spam sending, creating viruses and cyber attacks.

It is remarkable that there is a general rule according to which Russia's position is almost always higher in ratings which use only really measured parameters, than in ranking which use synthetic indicators for determining judgments of analysts. In this regard, it is worth to mention that Russia takes the 16th place among 224 countries by the average Internet data-downloading rate (according to Pando Networks).

In the ranking of the IT industry competitiveness, the Russia's position even worsened over the last year. According to analytical division of the British media group, The Economist (Economist Intelligence Unit) in two years time (this is the periodicity of the rating) Russia fell from the 38th to the 46th place among 66 countries. The following reasons were given for this: a small number of the IT patents registered in the country, the suppression of free competition by the state and the insufficient funding of the IT industry. These problems exist, but there were no signs of its aggravation for the last two years. Most likely this downgrade happened because the original data were collected before the adoption of amendments providing the decrease in the social payments rates for the software developers. The rank in Economist Intelligence Unit rating is not consistent with the rapid growth of the Russian software export and with the Russia's leading position in world market of software development services where the country is unambiguously conceding only to India and to the USA.

Low positions in rankings of the IT industry competitiveness are largely due to the fact that Russian companies exporting software still do not advertize their belonging to Russia, effecting sales from their sales offices — local taxpayers.

Russia is far from the leaders in the Global Innovative Index (prepared by INSEAD and WIPO business school with the support of partners from the Alcatel-Lucent project, Booz & Company and Confederation of the Indian industry). It took the 51th place in the list of 141 countries. The indicator of the last year — the 56th place but in a year the criteria of innovations' definition were extended. In 2012, the innovations in social sphere and business models were added to the number of R&D laboratories and the published scientific articles.

The Russia's position in the indexes of competitiveness for all industries is also low, as a rule. For example, IMD, a Swiss business school put Russia to the 48th place (from 59 countries) for this index.

At the same time, the largest Russian cities are rather high in different lists. For example, in the world rating Networked Society City Index made by Ericsson and the Arthur D. Little British analytical agency, Moscow rose from the 12th to the 11th place. This rating is based on the analysts' conclusions that there is a relationship between the social and the

economic level of the city and the ICT maturity. In the calculation of the ICT maturity degree, the analysts considered the following indicators: level of ICT-infrastructure development, readiness and availability of this infrastructure, and level of real technologies utilization.

In the 2012 Global Cities Index (created by A.T. Kearney and The Chicago Council on Global Affairs) Moscow rose from the 25th to the 19th place for the last two years. In this rating, the megalopolises with the population over 1 million people were considered as driving forces of the country and of the regional growth and as important elements of the world economic system which have considerable impact on the big regions of the planet. The position in the 2012 Global Cities Index depends on the following five parameters: level of business, level of the human capital, status of the information exchange (in particular, the quantity of the mass media correspondent points of global value is considered), cultural level of the population and political weight.

The ranking of cities with the best options for the software development outsourcing (The Top 100 Outsourcing Cities) prepared by the Global Services in 2011, includes the following four Russian cities: St. Petersburg — the 33rd place, Moscow — the 46th place, Nizhny Novgorod — the 63rd place, Novosibirsk — the 97th place. It should be noted that the representation of Russian cities in this ranking is being currently increased as the experts that prepared the ranking are getting more information about Russia.

The Russian higher education institutions not only almost never get to the top 100 in the rankings of universities, but also in general are extremely rare mentioned there. The main reason is that they do not cooperate with the rating agencies and their professors do not send articles to authoritative scientific magazines. The president of the Russian Federation set the task to raise five Russian higher education institutions into the top 100 of the world universities. Taking into account that the first required measure is to provide additional information to the analysts, it looks quite feasible in the next years.

In the rankings on the corruption level the Russia's positions are, on the contrary, influenced by the surplus of information (purposely negative and in many respects distorted). Nobody denies this problem (even the country leaders), but the 143rd place among 183 countries according to Transparency International looks unrealistic. With this level of corruption that is attributed by analysts to the country as well as to its largest cities, Russia could not take a place higher than 40–50 in any rankings. It seems that Transparency International started to correct this obvious discrepancy, because in a year Russia rose at once by 11 steps in the ranking prepared by this organization (last year it was on the 154th place).

ACHIEVEMENTS OF INDIVIDUAL RUSSIAN COMPANIES IN THE WORLD RATINGS

The majority of the leading Russian software exporters still do not seek to be present at various hitech company ratings created by globally authoritative analyst teams. The main reason is unwillingness to disclose their turnover and profit data so that it would not become widely known in our country. Besides, the product companies most often do not want to point to their Russian origin as they introduce themselves in the corresponding markets as local resident companies (in order to use the status of the "national producers"). There are also some fears that the Russian affiliation will not promote their successful operation in some foreign markets in connection with the prejudiced attitude towards Russia (in Europe and the USA mostly).

Due to the specified reasons and because of the information disclosure limitations, the positions of Russian companies in a number of ratings are much lower than it may be expected from the actual situation. First of all, it concerns the ratings which assume providing of financial statements verified by auditors as ranking is made by the turnover (or by its growth) indicators.

Russian service companies have a very different attitude towards the participation in the international ratings. Among the leading ratings we can note two versions of the Top-100 IT Outsourcing companies global ratings: Global Services and IAOP (International Association of Outsourcing Professionals). In these ratings (which are mainly based on the quality of rendered services, rather than on the company size) a significant number of companies represent Russia (only India and the USA have more companies in the ratings). Currently, the number of Russian software development service providers in the Global Services and IAOP ratings looks as high as possible and it may hardly be increased via better information transparency in other Russian companies.

The Global Services and IAOP analysts not only identify the global top-100 leading outsourcing companies but also define the best ones in various nominations that allows judging the more important strengths of the Russian software developers.

Companies that have their main development centers in Russia are noted as the world leaders or rising stars in the following categories: Product Engineering (EPAM Systems, MERA, and Luxoft), Software/Hardware (EPAM Systems, Auriga, Reksoft, First Line Software), Information and Communication Technology Services (Luxoft, EPAM Systems, Reksoft, Artezio, Auriga, First Line Software), Entertainment & Media (EPAM Systems, MERA, First Line Software), Automotive (Luxoft), Financial Services (Artezio), Health Care (Artezio, Auriga), Government (First Line Software), Research & Development Services (Luxoft, MERA, Artezio, Auriga, First Line Software),

Industry-Specific Services (Luxoft), Best 10 Companies in Eastern Europe (EPAM Systems, Luxoft) Best 10 Companies with Employees in Eastern Europe (Artezio, EPAM Systems, Luxoft), Top Climbers from Year to Year (EPAM Systems, Luxoft).

Global Services and IAOP separately determine the best service companies by a number of indicators that reflect the company size (number of staff, consolidated revenues, number of development centers). A few Russian companies are included into the corresponding additional ratings, but they are on the first positions only among the developers from Eastern Europe (almost all largest East European companies are located in Russia, Belarus and Ukraine). Only Luxoft and EPAM Systems are noted by analysts as global companies (according to the global standards they belong to the class of medium-size enterprises). At the same time, a number of Russian companies are quickly increasing their staff and consolidated revenues which can bring them to a new qualitative level in the near future.

The 2012 Global Services 100

According to the Global Services, Russian representation in the top-100 best outsourcing sevice providers has not considerably changed in comparison to the last year. It included 7 companies from Russia: Auriga, DataArt, EPAM Systems, First Line Software, Luxoft, MERA and Reksoft. The First Line Software appeared in the Global Services rating for the first time.

Only the USA and India have more companies in this rating. It is important to notice that Russia is represented in these ratings only by IT companies which offer outsourcing services in software development and software engineering. Those who are engaged in business process outsourcing (BPO) generally offer their services only within their country and have no pretensions to international markets. Therefore, the Russian companies' share among the IT service providers' in the Global Services 100 (without BPO segment) in fact turns out to be much higher than 8%.

It is worth mentioning that the Global Services 100 rating also included the following five companies from Ukraine and Belarus: IBA Group, SaM Solutions, SoftServe, Intetics and Itransition. All three countries are culturally and economically very close to each other, so we can quite reasonably mention them altogether as a so-called "Russian-speaking community" of the IT-service providers. The strengths of the companies from these three states are approximately identical. They comprise mainly high quality of education in the field of physics and mathematical sciences, creativity and experience in performing complex projects.

In the Global Services 100 rating Russian companies are noted among the best in 7 following additional nominations: Mid-Tier Leaders-Testing Services

(EPAM Systems and Luxoft are among 8 companies noted in this nomination), Leaders-Mid-tier Product Development (Luxoft is among 7 companies), Leaders-Global Product Development (EPAM Systems is among 9 companies), Leaders-Mid-market Enterprise Applications Deployment (EPAM Systems is among 9 companies), Top Mid-tier ADM Companies (EPAM Systems is among 11), Specialty ADM Vendors (DataArt, Reksoft are among 10 companies), Emerging Mid-Tier Global ADM Leaders (MERA is among 10 companies).

The 2012 Global Outsourcing 100

IAOP included only 5 companies representing Russia in the list of Top-100, but the rating of this organization covers a wider range of outsourcing directions. The Russian export companies do not participate in some of these directions which are not connected to HighTech in IT. Therefore the representation comprising 5 companies (Artezio, Auriga, EPAM Systems, First Line Software and Luxoft) can be considered rather high. Besides, it increased in comparison to the previous year similar rating (in 2011 only 3 companies from Russia were included there).

Some development companies only appeared in the additional IAOP ratings, but sometimes that is more important for them than to be included in the Top-100 (where they may not be always correctly compared to each other). In individual nominations analysts marked out two more custom software developers (MERA and Reksoft) among Russian companies which were outside the Top-100 of this rating.

Thus, 7 representatives of Russia were included in each of both ratings (IAOP rating and The 2012 Global Outsourcing). According to experts, the increase in the number of companies in these ratings confirms that Russian companies have added good understanding of market and the ability to satisfy customers to their well known highest technological level.

Except Russia, neighboring Ukraine and Belarus (IBA Group, Intetics, Itransition, SoftServe, SaM Solutions companies) also achieved the wide representation in the IAOP global rating.

The Black Book of Outsourcing

The new version of this rating created by Datamonitor was not published yet by the time of the present report edition. In the previous 2 years Auriga was the only Russian company that appeared in the Top-50 of the world leading IT service providers. It outstripped Xerox, Microsoft, SAP, Fujitsu, and Oracle corporations which were also classified as service companies by the rating authors. In addition, Datamonitor analysts recognized Auriga as the software engineering service provider N 1 in the world in 2011. In this nomination, the Russian service provider was ahead of such companies as IBM, Dell, HP, HCL, Wipro and Siemens.

Top 100 Worldwide Packaged Software

Most likely this rating will not appear by the results of 2011. Last year, according to the IDC research company report, Kaspersky Lab took the second place by revenue growth rates in the TOP-100 largest packaged software suppliers rating in 2010.

Deloitte Technology Fast 500 EMEA

According to Deloitte, the representation of Russian companies among 500 most fast-growing high-technology companies in the EMEA region varies because of a number of random factors. They are mainly related to the fact that companies' management would not like to provide analysts with the audited financial statements. As the Russian hitech enterprises are not obliged by the state to open their financial data, their managers are often not willing to provide this information. Russia holds the 14th-16th place in the Deloitte Technology Fast 500 EMEA rating, although it is expected to be among the leaders by the number of fast-growing hi-tech companies.

Nevertheless, we can note that Russian positions in this rating extended from one to 4 companies in comparison to the last year. The ER-Telecom company took the 11th place in the rating (its earnings gain reached 6858% for 5 years), Kaspersky Lab — the 185th place (864%), Rosservice — the 268th place (623%), Center of Financial Technologies — the 493rd place (317.3%). Among them, only Kaspersky Lab provided the rapid growth by successful promotion of their solutions and services in the foreign markets. Many other Russian software exporters promptly increased their income for the last 5 years, but they did not provide Deloitte' analysts with the financial statements.

Software 500

As Russian companies are not willing to provide analysts with necessary information, very few of them appear in the Software 500 list of the largest software companies (according to Software Magazine). In the recent years, only two Russian software companies have been present in this rating: following the results of 2011, Luxoft took the 188th place with the turnover of \$206.2 million, Artezio — the 462nd place. EPAM Systems, which also represents Russia (based on the location of its largest development center) takes the 181st place in the Software 500.

Global 100 Software Leaders

The Pierre Audoin Consultants (French analyst company) placed Kaspersky Lab on the 68th position in the list of the Top-100 world's largest software companies (by the revenue received from software sales in 2010). Among European companies,



Kaspersky Lab takes the 7th place. In Europe "1C" and Jet Infosystems are also among 100 largest companies.

FinTech 100

In 2010 and 2011, Luxoft was included into the FinTech 100 rating of the leading world providers of technologies and services for the financial industry.

Other Achievements of Russian Software Developers

In 2010 the FineReader Express Edition for Mac solution of ABBYY won the main prize in the "Best professional software" category according to the Macworld British magazine version.

PCMAG.COM magazine editors recognized the Paragon Hard Disk Manager Suite 2011 solution of Paragon as the best product among all hard disk management programs.

The combined virtualization platform share of Parallels constituted more than 54% of the world virtual infrastructure lease market in 2010.

National Outsourcing Association recognized Luxoft as the "Outsourcing Service Provider of the Year 2011", additionally the company's Polandbased Development Center was honored with the Outsourcing Destination of the Year award. Also Luxoft has been awarded Frost & Sullivan 2011 European Telematics and Infotainment Competitive Strategy Innovation Award and "Best Banking Technology Company in Eastern Europe" by World Finance Magazine. Luxoft is the only Eastern European provider included in Everest's PEAK Matrix for Large Banking Applications Outsourcing Relationships and is featured in Zinnov's 2011 R&D Service Providers Rating.

The Business Week magazine called DataArt one of the best developing outsourcing companies in the world.

The i-Free company became a prize-winner of the LG Apps Contest, which was organized by the LG Electronics corporation: the i-Social TV application created by i-Free took the second place in the contest.

PROGNOZ has a serious advance in the business intelligence (BI) segment — in 2011 it first appeared in the Gartner "magic square" among the BI world leaders.

The GoodReader iOS application created by Yury Selyukov (Russian amateur programmer) is in a great demand among American military customers and officials. The requirement for the support of working with his application for iPad appeared in the U.S. Air Force tender documentation.

Speech Technology Center (STC) is the ever first Russian company which got the award for development of their products from TMC (Technology Marketing Corporation), which is one of the largest media holdings in North America oriented towards

telecommunications and CRM markets. STC presented Smart Logger II (the automatic system to monitor the quality of call center operators' work) for the TMC contest of products and solutions.

The US police will use the equipment produced by Simicon, a Russian developer of equipment for road safety and speed control systems.

According to the comScore research, in September 2011, Yandex moved up to the fifth place among all world search engines by the number of processed requests.

RUSSIAN ICT MARKET

After the World crisis the Russian IT market renewed its rapid growth in 2010 and continued to grow in 2011. That growth has already led to significant achievements. First of all, in 2011 the volume of the Russian IT-market has exceeded the pre-crisis level of 2008. Second, in 2011 Russia got the first place by the number of Internet users in Europe (according to comScore) and by the number of imported PCs in the EMEA region (IDC). In addition, analysts began to talk of oncoming saturation in the Russian computer market that testifies to the achievement of the economically developed countries' computerization level.

There are several indicators which prove that the lag between Russia and the front-runners does not look insuperable any more. If the growth rates keep at the same level, the gap can be overcome within the next several years. First, it concerns the number of Internet users. By their total number, Russia not only became the leader in Europe, but also moved up to the 5th place in the world (according to comScore). By the population and the gross domestic product, the country is at a lower position. In Russia there are 3.6% of all Internet users in the world (while less than 2% of all globe population lives in the country!). By the number of broadband Internet users, our position is not much worse — the 6th or the 7th place in the world (according to J'son & Partners Consulting and Broadband-Forum.org, respectively).

By the average data-downloading rate, Russia takes the 16th place among 224 countries of the world (according to Pando Networks). Thus, the average Internet access rate in the Russian regions increased by 156% last year and by 50% — in Moscow and St. Petersburg (Yandex). At such growth rates, in a year Russia can become one of the 10 world leaders by the indicators that do not depend on the country size (the Internet access rate and the downloading rate).

By the Internet connectivity Moscow and St. Petersburg already correspond to the level of the cutting-edge countries (68% and 71% respectively) and regions quickly come nearer to both Russian capitals. The Information Society state program will promote the reduction of the lag thus subsidies for co-financing the regional IT projects to eliminate digital divide in Russia are supposed to be allocated

since 2012. The total amount of financing for 2012 will reach 670 million rubles (more than \$22 million), and until the Information Society program completion in 2020 – 6.76 billion rubles (more than \$220 million).

According to the survey of the Ipsos analytical company, which was carried out under the Reuters request, Russians are the world leaders among the VoIP technology users (36% of respondents used it at least once for the last three months).

Basic figures characterizing the Russian ICT market in 2011						
Indicator	2011	Drop (-)/Growth (+) following the results of 2011	Source			
	\$29 billion	+21%	IDC			
Russian IT market volume	\$21 billion (632 billion rubles)	+22%	PMR			
	\$21,6 billion	+14,6%	Ministry of Telecom and Mass Communications			
	\$26 billion (781 billion rubles)	+13,3%	Discovery Research Group			
Income from communication services	1.425 trillion rubles	+5,1%	Ministry of Telecom and Mass Communications			
Capital investments in the communication industry	259 billion rubles	+35,2%	Ministry of Telecom and Mass Communications			
Equipment deliveries (computers of all types, tablet PCs, and smart phones)	\$18 billion		IDC			
Computer deliveries to Russia (desktops, laptops)	12.9 million pieces (4.46 million pieces, 8.44 million pieces)	+13,4% (2,2%, +20,4%)	IDC			
Cumulative sales in the Russian computer market (including monitors, webcams, keyboards, tablets, and UPS, in addition to computers)		+37%	Gfk			

Indicator	2011	Drop (-)/Growth (+) following the results of 2011	Source
M (1)	34.5 billion rubles	+35%	TAdviser analytical center
Market of business analysis (BI) systems	\$800 million	_	IDC
Sales of standard architecture servers (number of pieces)	250 million dollars (52.7 thousand) For the 4th quarter	+26,4%	IDC Russia Quarterly Server Tracker
Sales of heavy servers	95 million dollars For the 4th quarter	+30%	IDC Russia Quarterly Server Tracker
Volume of the Russian information security market	\$334.6 million	+23,1%	Anti-Malware.ru information and analytical center
Volume of the laaS market	380 million rubles		J'son & Partners Consulting
Total usable area of the Russian commercial data centers	60,980 sq. m. (at the end of 2011)	+60%	J'son & Partners Consulting
Sales results of the DSS manufacturers	152 million dollars (in the fourth quarter)	+64,5%	IDC
Total capacity of purchased external DSS	72.5 thousand TByte	+145%	IDC
Volume of the Russian engineering software market	\$162 million	+23,8%	IDC
Deliveries of printers, copiers, and multifunctional devices to Russia	\$940.9 million (4.2 million pieces)	+1.4% (+0,8%)	IDC
IT services (system integration, consulting, etc.)	\$5.8 billion		IDC
Sales of software	\$3.4 billion		IDC
Production of devices and equipment for the automatic regulation or control	23 billion rubles	+35%	Restko Holding's Analytical Department

Following the results of 2011, Russia moved up to a rather high 27th place from 193 countries in the UN rating on the level of electronic government development, having overtaken Ireland, Italy, Greece, Lithuania, Poland and some other countries. In the previous similar rating it had the 59th place only.

According to the results of the "Role of ICT competences in Social and Economic Development of Russia" research which was carried out by the Institute of Information Society Development (IISD) and the Microsoft Corporation, the level of Russians' ICT competences falls behind the average European figures but this gap is being promptly reduced. For example, since 2008 the difference in shares of the Internet users of all population in Russia and in the countries of the European Union (EU) was reduced more than twice. 58% of inhabitants of Russia use computer at least once a week, and this figure in

EU is equal to 69%. The corresponding difference by Internet connectivity is between 56% and 68% respectively. This gap may be extirpated within 3 years if the growth rates in Russia and the EU remain at the same level.

At the same time, according to the report of the World Economic Forum on the countries' ICT development, Russia is on the 56th place that does not look sufficiently reasonable considering a great number of other comparative indicators (including the vendors' estimates of the ICT market development). Most likely the country's position should be significantly higher (by 10–15 places) following the results of 2012. Especially if the Russian IT market continues to grow quickly.

According to various estimates, from 2010 to 2011 its volume increased from \$21 bln to \$29 bln with an annual growth of 13–22%. Judging by sound results in

Indicator	Time	Absolute value	Indicator change	Penetration indicator	Source
nternet connectivity	At the end of 2011			44%	The World Bank, ITU
Number of Internet users, monthly (daily)	At the end of 2011	57,8 million users (44,3 million users)			St. Petersburg Interna- tional Economic Forum
Jumber of Internet users aged 15 and older	March, 2012	56 million people	+18% (in com- parison with April, 2011)		comScore
Number of wired broadband Internet ubscribers over 12 years	End of 2011	21.7 million households (about 1.5% of them are connected over PON)		39%	J'son & Partners Consulting
Number of unique users who watch video in the Runet	December, 2011	47,4 million subscribers	+20% (in comparison with March, 2011)		ComScore
expenses for online purchases in Russia	End of 2011	244,6 billion rubles			InSales company
lumber of Russians who do online hopping	End of 2011	6,1 million subscribers	+16,5%		Russian Index of Targe Groups, the Synovate Comcon research
hare of Russian Internet users registered a social networks	End of 2011		+50%	82%	All-Russian Public Opini Research Center
werage Internet access rate in the egions (in Moscow and St. Petersburg)	End of 2011		+156% (+50%)		Yandex
werage cost of Internet access in the egions (in Russia as a whole)	End of 2011	145 rbl./Mbps per month	-60% (43%)		Yandex
nternet connectivity level in Moscow and St. Petersburg (in the regions)	Autumn 2011	54.5 million people	+17%	68% and 71% respectively (44%)	Yandex, Public Opinio Foundation
olume of the Russian social game narket	End of 2011	6,962 billion rubles	+171%		Mail.Ru Games report
lumber of households with the fixed roadband Internet access	End of 2011	21.7 million	+18%	38%	J'son & Partners Consulting
roviders' revenues from the broadband aternet access services for individuals	End of 2011 (forecast for 2012)	71,8 billion rubles (81.2 billion rubles)			J'son & Partners Consulting
olume of the Russian online dvertizing market	End of 2011	1.12 billion euros	+55,5%		Interactive Advertising Bureau
-commerce	End of 2011	320 billion rubles	+30%		St. Petersburg Interna tional Economic Forun
nternet economy volume the share in the GDP)	End of 2011	750–850 billion rubles (1.4–1.7%)			Russian Association for Electronic Communications

Russian market of cellular communication and mobile phones						
Indicator	Time	Absolute value	Change	Source		
Deliveries of smart phones to Russia	2011	8.7 million pieces or 21.2% of overall mobile phone market		IDC		
Number of mobile phones sold (the share of smart phones) Forecast	2011	40 million (15%)		Euroset		
Volume of the mobile phone market	2011	40.5 million pieces (174.8 billion rubles)	+16% (+12%)	MTS		
Volume of the smart phones market (the share of all mobile phones — 19%)	2011	7.7 million pieces (83.3 billion rubles)	over 100% (+80%)			

some separate segments, the maximum value of the IT-market looks the most realistic. It can be reasonably assumed that the IT market volume was not less than \$29 billion in 2011 (data from IDC) that is 16% more than in the pre-crisis 2008.

Analysts consider that the IT market growth rate will remain at a rather high level in the next years, although there are some preconditions of its reduction because of the market saturation. First, the saturation is expected in the market of computers as the vast majority of Russians (excluding elderly people and very young children) already has computers. In 2011 and at the beginning of 2012 there have been still noticed many purchases of the first computer (such purchases are the market driver). But judging by the characteristics of sold PCs that was the last segment of population to be covered. They did not think of acquiring a laptop or a desktop PC until recently and do not fully understand why these devices are necessary to them. After the saturation of this buyers' segment, the infants will be the only uncovered category.

According to the IDC forecast, the Russian IT market will increase by 14% in 2012 and will reach \$33 billion. Judging by the 2012 first quarter data the growth in 2012 would probably exceed the predicted 14%. According to IDC, during the first three months of the year sales of computers increased by 33.4% and sales of servers — by 23.6%.

It is expected that following the results of the entire year the volume of the Russian engineering software market will increase by 18%.

The Gfk estimates of the Russian computer market growth rate for the first quarter of 2012 are much lower — 8%. The essential discrepancy with the IDC data can be explained by different methodologies used by analysts.

Concerning the next years the IDC forecasts show a decrease in growth rates. The company assumes that until 2015 the IT expenditure in Russia will grow by 11.6% on the average and will reach \$41.1 billion. At the same time separate segments will show more essential growth. For example, J'son & Partners Consulting experts consider that in the next three years the growth rates of the Russian cloud laaS service market will be about 150–250% per year, and the total market size will be about 3 billion rubles

(\$100 million). Now, it slightly exceeds \$10 million.

Considering the ratio of the IT expenditure versus the GDP in Russia and in the economically developed countries (1.5% against 4%) the Russian IT market can still grow 2–2.5 times. This increase may be reached within 4 years with an annual growth approximately of 20% which looks quite realistic. The saturation in the IT market will be visible in the short term but there are few more years of rather rapid growth ahead.

In the market of telecommunication services, the saturation has been already reached. Its growth does not exceed 10% for several years and there are no preconditions for acceleration (especially, considering the reduction in the cost of these services). However, this growth rate is rather high compared to the West European countries.

According to the Ministry of Telecom and Mass Communications of the Russian Federation, the total income from telecommunication services was 1.425 trillion rubles (\$47 billion) in 2011; that is 5.1% more than in 2010. However, the capital investments in the telecommunication industry increased by 35.2% up to 259 billion rubles (\$8.6 billion). In the first quarter of 2012, the growth of the communication service market slightly increased and was equal 9%.

The ICT market share in the GDP remained at the level of 4% in 2011 and is the same as by the results of 2010.

In the market of telecommunication services the absolute saturation by the number of mobile phone users has been reached. During this year, for the first time the subscriber base of all leading Russian mobile operators was reduced.

The growth rate of the mobile phone market in 2010 decreased due to the lack of new subscriber inflow and to the reduction in the cost of devices. In 2011 it increased by 12%. Thus, the growth was generally reached due to sales of smart phones which were purchased to replace traditional devices. Sales of smart phones increased by 80%. The relevant growth rate remains the same following the results of 1H 2012.

In 2011, the Russian market of mobile phones reached the level of the pre-crisis 2008 in terms of numbers, but did not reach it in the money terms.

The prospects of the cellular telecommunication market are in many respects connected with the



increase in demand for the mobile Internet. According to the Ericsson forecast, by 2020 the mobile traffic in Russia will increase 25 times. At the beginning of 2012 the mobile Internet audience (according to TNS) was 22% of inhabitants in large cities. The increase

in demand for the mobile Internet will be promoted by the 4G networks creation (LTE). The first network of this type was launched in Novosibirsk at the end of 2011. The frequency ranges for these networks in other cities have been already allocated.



CHAPTER 2.

VOLUME AND STRUCTURE OF RUSSIAN SOFTWARE EXPORT







«Lanit-Tercom» has been a player in the international IT market since 1991. During all these years, I've made an effort to preserve university traditions of empirical production within the company. Hopefully, I've succeeded. We operate in such areas as reengineering (porting legacy software to modern platforms), hardware and software development for real-time embedded systems, graphics-based software and programmable logic technologies, mobile applications and stereo computer vision. We hold a leadership position in these fields precisely because our activities are based on several years of research and development. I'm pleased that many colleagues in our industry are slowly beginning to understand my viewpoint. If we attempt to underline the principal characteristics which make Russia different from other software-producing countries, it would be our exceptional strength in teaching and developing the pure sciences.

Professor Andrey N. Terekhov, Founder and CEO of «Lanit-Tercom»

If there are no economic shocks (such that took place in 2008) and if there is a certainty concerning the near future, our forecast on software and software development services' export slightly differs from the actual figure. The last year passed in expectations of a new wave of the world financial crisis, but it was rather quiet. In any case, the situation in the markets that are important for Russian companies was stable. As a result, the actual size of the software and the software development services' export practically matched the forecast. From the point of view of separate companies' results, they did not often manage to predict their basic economic results correctly. Some companies underestimate problems in their forecasts but the surplus is compensated by others with overestimated expectations of problems. So finally, based on the representative sample, we have a high convergence of the actual results with the forecast data.

Thus, following the results of 2011 the consolidated export revenues of the Russian software developers increased by 22% and reached \$4 bln which is very close to the predicted figure. Apparently, the growth rate has stabilized at the level of 20-25%. It was in these limits for the last 4 years (except for the crisis of 2009 when the export practically did not grow) and most likely it will remain the same during the next 2 years. According to the respondents' forecasts, in 2012 the export companies will earn in the foreign markets 26.5% more than in 2011 (\$5.1 billion). In 2013, a reduction of the growth indicator to 21.6% (\$6.2 billion) is expected, even though many companies did not answer the question on the growth forecast for 2013 (most likely because of uncertainty about the world economic crisis development).

In the current conditions, return to the growth rate of 40–50% which had been observed at a lower initial base when the export actually increased from the scratch, is improbable.

Nevertheless, the industry still has a potential for the growth in the next several years at the level of 20–25% a year (with a possible small acceleration up to 30% in some years). Thus an increase may be predicted for all export segments: software products, the custom software development and R&D of foreign companies.

However, it should be noted that the current achievements were gained without any significant state support. This support has only appeared last years (first of all, concerning incentives in social payments and financing of startups and perspective R&D through Skolkovo Foundtation) and it may seriously enhance the increase of the export growth. Another important reserve of the industry's export growth is the state support through eliminating administrative barriers — in the customs' regulations and in the currency control as well as in the accounting. And finally, the major source of growth is related to the development of educational system via tax stimulation of business to invest in retraining.

The effect of all this support shall not be only considered from the point of view of increasing tax collection and growing employment. The increase in the software export allows to diversify the Russian economy and to reduce its dependence on fluctuations of the world prices for raw materials. Software exporters gain the competences and knowledge abroad that will be implemented in the Russian market. It is necessary to realize that all modern enterprises of the hi-tech economy sector depend on software. More high quality developers



with successful global competition experience exist in Russia — higher are the chances of Russia to create globally competitive solutions in any area of innovative economy.

The software share in overall Russian export is still less than 1% (about 0.8%, following the results of 2011). It is not much, but this indicator already starts hitting the radars of the Russian authorities. And, most likely it will grow in the next years. In Moscow and St. Petersburg, this indicator is higher than the average Russia-wide value — about 2% and 5% respectively. Thus, it is necessary to keep in mind that the exporters of petrol and gaz, wood and

other natural resources are registered mainly in the Russian capital but resource extraction and processing are generally conducted in regions.

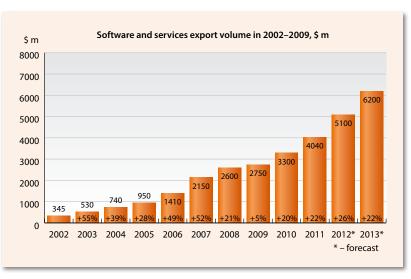
The software export volume can be considered equal to the export of the Russian nuclear energy industry and comparable with the Russia's income from the sales of armament and military equipment abroad which reached \$13.2 billion last year. The fact may not be ignored — the software industry is already rather a significant factor of the Russian economy.

As the software development service export growth turned out to be slightly higher than in other segments, this segment share in the total export turnover increased. According to our long-term research the share of sales of software products abroad in the general export structure had been steadily increasing until 2011. For the last year, this segment slightly conceded to the segment of software development services. However, it is to be noted that it occurred mainly due to a decrease in the growth rates of the largest Russian software exporter — the Kaspersky Lab.

The share of the international development centers' export continues to reduce steadily. At the same time it is necessary to recognize that this segment continues to develop and its growth rate exceeds the growth rate of the global IT market.

If we look at the correlation between export dynamics and companies' turnover we may see that the growth indicators (both for the cumulative income and for export) of the medium and large companies (with a turnover over \$4 million) are much better than those of small companies. The difference in export growth between them — 26% and 2% respectively — is especially great. There is no such great difference in the cumulative income. The growth of companies with a turnover over \$4 million was 30%, while that of companies with a turnover less than \$4 million — 16%. It is difficult for small software developing companies to increase sales in Russia, and it is even more difficult — to do this abroad.

As in the previous years, more the companies are focused on the foreign markets, the higher the



growth indicators are.

When the structure of the IT-export is being discussed, the income in foreign currency of the Internet companies (where commercial success depends mainly on the full-time software developers) is not included into consideration. Earlier, they were mostly oriented towards the Russian market and only on a second-priority basis — towards the former Soviet Union market. Their export income was insignificant. However, for the last 2 years, after the successful IPO, Yandex and Mail.Ru Group began their expansion in the foreign markets.

Yandex turnover is already approaching \$1 billion. Their export income may be considered not higher than 10% (it is rather probable value). So it turns out to be \$100 million and may reach hundreds of millions dollars in the short term. It is incorrect to consider these companies as software ones, even though their successful promotion in the world market is only possible because of their new software solutions.

As Internet companies can be considered neither as standard software developers nor as customized software developers, their export revenue should be accounted separately from the IT export. There are issues concerning determination of its value, but they are resolvable.

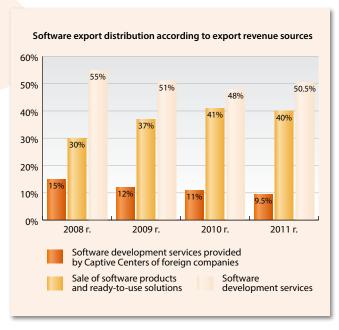
SOFTWARE DEVELOPMENT SERVICES

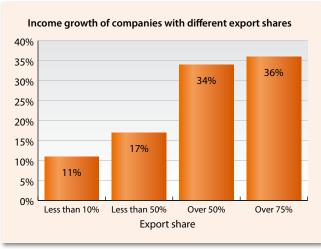
Volume — \$2040 million. Growth — about 27%.

The growth rate of the software development service export increased by 27% (in 2010, it was 14%). This acceleration was provided by the largest service companies which have development centers in various countries. In this regard, they depend on the staff shortage in Russia to a lesser extent than other service providers do. Based on these companies' expectations, it is possible to assume that in 2012 the service export growth will slightly slow down, instead it should remain at a rather high level.

Russian service companies are confidently at the top of the listing of the leading IT outsourcing service providers in Eastern and Central Europe, and together with the companies of Belarus and Ukraine they compose a so-called IT outsourcing Russian-speaking cluster which is the largest provider of IT services (the software development services mostly) in Europe. Respondents of the survey consider that service companies still have a potential for a further increase in the export revenue despite the current staff problems.

The growth of the Russian software development industry's service segment was also reflected in the international ratings (see the chapter on achievements of the separate companies). Russian companies strengthened their positions in 2011 in both leading IT outsourcing world ratings (Global Services and IAOP). Different ratings included nine Russian companies: Artezio, Auriga, DataArt, EPAM Systems, First Line Software, Lanit-Tercom, Luxoft, MERA, and Reksoft. Auriga (company which placed their main development resources in Moscow and in Nizhny Novgorod) took the absolute first place in the category of "software engineering service provider"





in the world rating of the leading engineering companies (Data Monitor, 2011), having outstripped such giants as IBM, Dell, HP, HCL, Wipro, and Siemens.

As the listed ratings estimate service companies by a number of criteria (including clients' assessment of the quality of the delivered IT services) rather than by their turnover absolute data, we can confidently state that the Russian IT outsourcing industry has reached a considerable world recognition both as a hi-tech resource for effective development of state-of-the-art technical solutions and as an experienced and reliable provider of services that add value to the client's business.

The success of the EPAM Systems company shall be especially noticed. Following the experience of Mail.Ru and Yandex, the company has successfully performed the initial public offering at the New-York stock exchange. EPAM Systems's preparation for IPO forced the company to increase the turnover that generated an additional hundred million dollars to the service industry's total export amount.

According to views of the service industry experts expressed within this research, in the last years the service companies' export structure has shown net increase in the share of R&D and software product development services at the expense of the custom application development and support. As a whole, the Russian service IT companies' export remains high technological one and is based on the development of applications and of new software products in the most competitive market segments. According to experts, the share of the hi-tech services (both and applications' and software product development) is about 65% of the overall export of services (15% for R&D and 50% for applications' and product development respectively). The share of maintenance of developed or existing IT systems is slowly growing (about 20%). The volume of other IT services (integration, consulting and infrastructure support) is also gradually increasing. Now it reaches 15% of the overall services export.

SOFTWARE PRODUCTS AND READY-TO-USE SOLUTIONS

Volume — \$1615 million. Export growth — about 20%.

Unlike software development services, the growth of software products and ready-to-use solutions export in 2011 slowed down. Last year it was at least 30% (needless to say that this growth was in many respects determined by the input of Kaspersky Lab, which provided nearly a half of the export gain in this area in 2009-2010). Following results of 2011, its turnover increased by 7% only, whereas in the previous two years the growth had been reaching about 40%.

Kaspersky Lab, the Largest Russian software exporter, has already gained a foothold in all main



markets and is the leader in some of them (for example, in Germany). Besides, it did not introduce new products in 2011. Thus, the company explored in full its potential for a rapid growth. Although other software product exporters increased their turnovers, they did not manage to completely compensate the growth decceleration demonstrated by the Kaspersky Lab.

Nevertheless, the export growth up to 20% is sufficiently high. Besides, there are good opportunities not only to retain the growth rate at this level in the next years, but also to achieve better values. It is quite possible to assume that Kaspersky Lab is going to launch new solutions which would allow them to gain an essential additional revenue from sales in the growing world market of information security. The company management did not refuse the purpose to appear in the market in the top-three. Now, according to IDC, Kaspersky Lab takes the 4th place in the ranking of the world manufacturers of security solutions for end users. Besides, the company is eager to reach a billion turnover. This objective looks quite achievable taking into account the turnover of \$612 million by the results of 2011.

The Elcomsoft and Dr.Web, the second-large Russian antivirus developer, also became known abroad in the field of information security.

An essential gain of the software export may be provided by companies with the export income already exceeding one hundred million dollars. These are such Russian companies as Parallels (virtualization and automation software), Acronis (solutions for backup, restore and protection of operating systems and data), Transas (development of software solutions for synthesis of 3D images, vessel navigation and traffic control systems, sea and air transport simulators) and ABBYY (electronic dictionaries, image recognition systems). i-Free with the turnover over \$200 million may be added to them. This company does not reveal its export share, but judging from actively operating offices in Brazil, China, and India it is rather great and, most likely, exceeds 50%.

i-Free is not only a mobile device applications developer but also a distributor of similar solutions of other Russian companies, helping them to execute sales of their products abroad.

Except the above mentioned companies, there are a number of other Russian developers of software products and standard solutions which are noticeable in the world market. They are as follows: CBOSS (complex automation of telecom business on the basis of innovative convergent self-produced IT solutions), Paragon Software Group (system utilities for work with the data on hard disks, multi-profile software for intellectual pocket devices), SPIRIT (built-in software for voice, video and data transfer over various communication channels), PROMT (machine translation systems), Speech Technology Center (speech recognition and synthesis systems), PROGNOZ (business intelligence and decision support

systems), Development Experts (development of software for brokers).

ABBYY, Parallels, and Speech Technology Center created their affiliated structures, which obtained grants for perspective technology development from the state owned Skolkovo Foundation. These companies may also become fast-growing software exporters in the foreseeable future.

The 1C company (accounting systems, ERP systems, games) is more oriented towards the Russian market but it actively operates in the neighboring countries and undertakes efforts to promote its products in Western Europe. With the turnover in hundreds of millions dollars (according to some information nearly \$800) it has a sufficient marketing budget and (what is even more important!) a very successful business model bound to achieve success in new markets. Following the successful competition with SAP and Microsoft in the field of ERP systems for small and medium businesses, 1C is strenuously developing in the segment of "heavy" ERP systems for large business. It is already competing with SAP in this field in the Russian market. Development of the 1C positions in this Russian market segment and the entry into the CIS market can make this company one of the future Russian software export leaders. The company plans for IPO confirm its ambitions in the global market, as well.

It is worth noticing that several sufficiently large Russian companies that previously operated mainly in the Russian and in the CIS market began to promote their solutions in foreign countries in 2011–2012.

At the end of the last year, ASCON (producer of CAD/CAM/CAPP/PDM systems) opened its first office outside the former Soviet Union countries. It was created in Munich and is oriented towards the German-speaking countries — Germany, Austria, and Switzerland. The company's management set the task to open the similar offices in all continents in the next 10 years.

In the spring of 2011, Softline — a large Russian software distributor — began selling its own development product called DeskWork (enterprise portal for automation business processes and organization of Intranet) in the USA. Thus, the distribution company in the future could become a major software exporter. For this purpose, it formed a marketing budget and established sales channels. Now Softline has offices in 21 countries (in Europe, Asia, Africa and South America) where it sells software products of various vendors.

In the spring of 2012, the Naumen company announced its entry into the call-center market of the Asia-Pacific region.

Last year, IBM and Diasoft signed the Global Alliance Attachment agreement which provides the joint development and global promotion of the Russian company's banking solutions based on the Service Oriented Architecture (SOA). Within this agreement, IBM will provide its partner with the

technological expertise and also with support of Diasoft projects in optimization and in the introduction of banking systems to their customers. IBM will also assist with implementation of marketing initiatives and worldwide promotion of the Diasoft products. The company management expects that by 2015 about 30% of the company's income will be connected with operations in the international markets.

The Qiwi processing company plans to install a pilot batch of 100 payment terminals in the USA until the end of 2012 to define its specific development plans in the US market.

In the summer of 2012 PROGNOZ has opened its new office in Zambia. The company plans to be engaged into development of the statistics' portal and of applications for the African Development Bank, then to create similar statistics' portals for Mozambique, Rwanda, and Nigeria. PROGNOZ offices already operate in Beijing, Washington, Brussels, Kiev, Astana, Dubai and Minsk.

In the spring of 2012, simultaneously with the launch of the cloud version for the Russian customers, DocsVision (electronic document flow system developer) from Digital Design group began similar sales in Romania. The developer intends to use its entry to Romania to further expansion in the SMB market segment in other developing countries. Turkey is supposed to become the following. Further, the company plans to enter the market of South Fast Asia.

In the autumn of 2011, Rosoboronexport and Russian Corporation of Telecom Equipment (both are part of the ROSTECHNOLOGII state owned corporation) announced the beginning of their cooperation in the field of international market promotion of complex automated security management systems. The most perspective regions for the system promotion are considered to be countries of Latin America (Argentina, Brazil, Venezuela, Peru, Ecuador, etc.) and South East Asia.

The advantage that the Russian companies have due to the placing into orbit of the Russian Global Navigation Satellite System (GLONASS) may be realized in the next few years in the increase of the export of terminals and of various applications connected with the transport monitoring. It is worth mentioning that only the USA have a system with the similar functions (GPS). Company called NIS GLONASS plans to gain about 20% of the Indian professional navigation equipment market in 5 years; and in the long term the company intends to capture 20-30% of the world market in this segment with the estimated current capacity of \$60-90 billion. In the spring of 2012, Russian Navigation Technologies created its subsidiary in Brazil (it already has its offices in Egypt and Ukraine) and confirmed their plans for the entry into the markets of the USA and Europe.

Due to the creation of online web-store applications by the largest manufacturers of mobile devices (or operating systems for mobile devices), very

small companies and even home-based developers got opportunities to successfully sell their small applications abroad. There are many cases when they got important successes. For example, in the spring of 2012, a graphic editor and the RSS reader developed by a student from St. Petersburg entered into some national tops of the Windows Phone shop, and the applications developed by Vito Technologies (from Novosibirsk) took leading positions in its segment in AppStore.

SOFTWARE DEVELOPMENT CENTERS OF FOREIGN CORPORATIONS (CAPTIVE CENTERS)

Volume — \$380 million. Export volume growth — 9%.

The international software development centers already operating in Russia staffed up not very actively in 2011. As a rule, they were recruiting employees in the routine mode, increasing their staff personnel no more than by 5-10% a year. Only Deutsche Bank demonstrated a significant activity — in addition to its Moscow development center it created the similar center in St. Petersburg.

At the same time, several large corporations started realizing plans on creation of their R&D divisions in Russia, which had been declared during the last three years.

At the end of 2011, Cisco Systems announced the beginning of recruitment for the created affiliated company which is going to become a resident of the Skolkovo innovation center. During 2012 the company is supposed to recruit about 30 Russian engineers who, in particular, will be engaged in the development of new technologies for video analysis.

In the spring of 2012 it became known that the programmers from the Microsoft's Moscow ERP system development center are engaged not only into the product localization, but they also participate in the development of their new products. In the nearest future the corporation intends to increase the staff of the center (which currently employs about 70 people) approximately by 40%. Besides, Russian experts provided development to the most sophisticated Cloud Numerics functions of Microsoft. Microsoft identifies Cloud Numerics as the first cloud project of its development center in Russia which is created as a part of the agreement with Skolkovo.

In the spring of 2012 a laboratory of the SAP corporation (SAP Lab) which is engaged in scientific research and innovative development in the field of high tech, began its operation in the Skolkovo innovation center. It is expected that by the end of the year its staff will include 70 employees. By 2015, the company plans to increase the laboratory staff up to 250 people. The amount to be invested in the activities of the SAP innovative high tech laboratory will be about 45 million euros.

List of foreign companies that have their own R&D centers in Russia:

Alcatel-Lucent, Allied Testing, AVIcode, Cadence, Design Systems, Chrysler, Columbus IT, Dell, Deutsche Bank, Digia, EGAR Technology, EMC, EMS, Ericsson, Google, Hewlett-Packard, Huawei, Intel, InterSystems, Jensen Technologies, LG Softlab, Motorola, NEC, NetCracker, Nival Interactive, Microsoft, Nokia, Nokia Siemens, Quest Software, RD-Software, Samsung Research Center, SAP, Scala CIS, SmartPhoneLabs, Oracle (Sun Microsystems), Tagrem Studio, Teleca, T-Systems.

In the winter of 2012, the EMC Corporation declared opening of its one more Russian R&D center in Skolkovo. It is supposed that by 2015 this center's staff will reach 50 people. Bio-informatics will be one of the main directions of this center's research activities.

Huawei has announced in 2012 that it also intended to create its second Russian development center. The new R&D division will appear in Samara and will perform development of solutions in the field of cloud technologies based on the Open Source software.

Nokia Siemens Networks declared opening of its new 4G mobile communication R&D center in Russia. This company has had Russian R&D subdivisions for a long time and actively cooperates with Russian universities.

Qualcomm, a US mobile microelectronics manufacturer, considers a possibility to open its development center in Russia. The company is already looking for acquiring groups of Russian engineers in order to create a new subdivision thereof. The company is interested in the experts who have experience in developing applications for digital signal processing.

It may be assumed that the Intel Corporation will also increase investments into its Russian R&D centers in connection with signing an agreements with the Skolkovo Foundation.

Even if not all the declared plans are realized, an increase in the export rate growth for the software development centers of foreign corporations is expected within few next years.

Not all heads of Russian R&D centers of corporations are fully satisfied with the business climate that exists in the country right now. First, all of them are worried about the termination of the incentives on social payments for the software development companies which would expire in 2014. They are also very upset about serious administrative barriers for import to Russia of hi-tech equipment intended for software development and testing.

The problem of hi-tech equipment import could be generally resolved by Russia's joining the IT Agreement within Russia's accession to the World Trade Organization. If only Russia joins properly the ITA co-signers.

In order to retain the level of incentives on social payments it is necessary to fulfill V.V. Putin's Orders of February 17, 2012, when he (than as the head of the Government) charged the members of the Government with keeping incentives in social payments further on and spreading them over small companies — having lowered the minimum of staff number in a company (necessary for obtaining the incentive) to 10 people.

At the same time, yet no one international company goes out of its software research and development in Russia.



CHAPTER 3.

MAJOR TRENDS IN THE RUSSIAN SOFTWARE DEVELOPMENT INDUSTRY



The priorities of the respondent companies' development and the current year main objectives practically have not changed in comparison to the previous year. Distinctions between the companies' judgments depending on their size, export share and location remain the same.

The export share increase and expansion of the marketing network abroad are the priority for 43% of the companies with the turnover over \$4 million and for 19% of the companies with the turnover less than \$4 million. Still, small companies depend stronger upon online sales through Internet (this direction was mentioned as a priority by 16% of companies with the turnover less than \$4 million and by 7% of companies with the turnover over \$4 million).

Only 3% of companies with the turnover less than \$4 million consider creation of development centers in the regions as a priority.

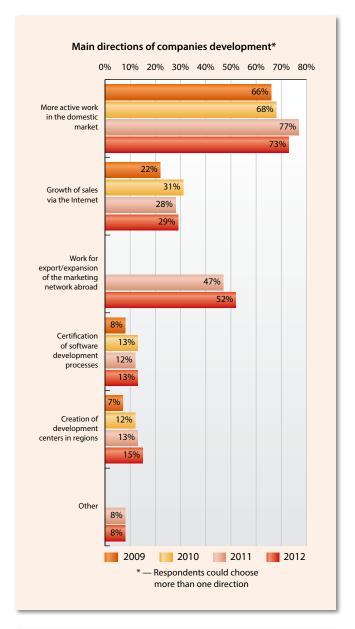
When comparing the survey results for companies from different cities, it should be noted that the St. Petersburg companies focused on export operations much more often than Moscow companies did (38% and 17% respectively).

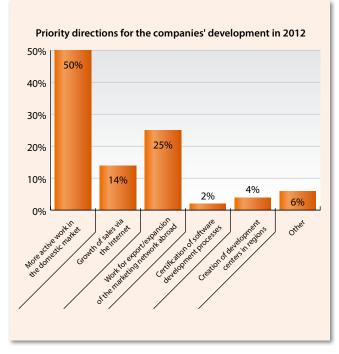
Companies that are more oriented towards export (more than 50% of their income share fall on sales abroad) consider creation of development centers in the regions as the main objective much more often than the companies that obtain the most part of their income from sales in the domestic market (10% against 1%).

QUALITY MANAGEMENT SYSTEM CERTIFICATION

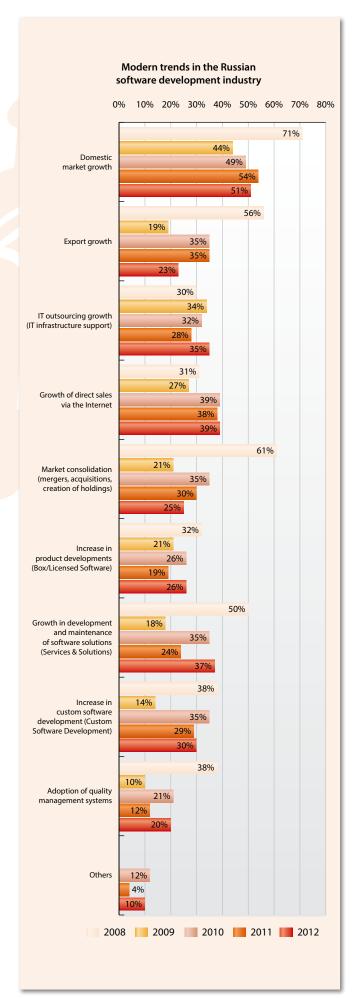
The share of certified companies did not change significantly in the last 4 years so the figures do not allow revealing any industry tendencies. The situation is stable. Still, the most part of non-certified companies plan to undergo the corresponding procedure in the next 2 years. By the results of the present survey, there were 46% of such companies (or 29% of all respondents) whereas in the previous years there were about 20-25%. However, there is no evidence that the plans declared a few years ago have been accomplished at least by a half or by a quarter. Apparently, many companies desire to obtain the Certificate of Compliance to the international standards but there is no such urgent need taking into account that the certification procedures (particularly to CMMi) are rather expensive and difficult.

According to the interviewed experts, the issue of establishing a quality management system in the software development companies in Russia has lost its urgency because practically all companies have their own quality management systems. For those service companies which participate in the international tenders with formal requirements of compliance to CMMi certificates, this problem is solved by the official certification. All product companies and small service









providers are satisfied with ISO and implement their own quality management systems based on ISO and CMMi, but not requiring expensive procedure of certification and of its confirmation.

The state support in this field is insignificant, so most of the companies are not aware that in the competing countries the State is interested in the certification of software companies. Therefore, almost all respondent companies are either satisfied with support (or its absence) or give it the marginal grade.

In 2007 the first authorized (and later — certified) national CMMi Instructor appeared in Russia, and in 2009 — the first Russian-speaking Lead Appraiser. This fact only led to a short-term and small increase in the number of certified companies as the share of the Russian experts' services cost in the total assessment and certification cost is not great enough to seriously affect the certification cost as a whole.

INVESTMENT ATTRACTION

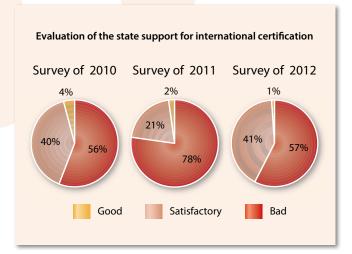
The share of companies that attracted investments practically did not change during the last 3 years. In 2011 like a year before it was 9%. However, the share of companies that plan to attract investments in the next two years has sharply increased.

Considering that more and more investment funds appear in Russia and the volume of available venture capital is constantly growing, companies' hopes to obtain money are quite justified. If there is a reasonable plan of business development and there is also a sufficient current income growth, investors will be found.

Companies with the turnover up to \$4 million more often attract investments and depend on investments in the next 2 years in comparison with larger companies. The largest companies (with the turnover over \$20 million) have declared no external investment at all last year. Only one large company (out of 9) plans to attract investments in 2012, and none — in 2013. It is necessary to say that they always need external investment for their development. It is also true that the volume of needed investments is exactly what venture funds want to see from their side (tens of \$mln). Still big business do not want to declare public their plans of attracting investments as they consider that process to be very delicate, confident and requiring long and serious preparation.

For several years, the external financing in the IT sphere has grown considerably. According to the first review of the Russian venture market in 2011 prepared by the PwC Centre of Technologies and Innovations and the Russian Venture Company (RVC), the total amount of venture investments into the Russian IT sector in 2011 was equal \$237 million (in 139 deals). The e-commerce (\$107.6 million) sector as well as the entertainment and social networks sector (\$57 million) are in the lead by the volume of attracted investments. More than a half of





investments (\$124 million) were attracted as the first round of financing.

PwC and RVC experts predict that if conditions in the Russian and the world economy remain the same favorable, the volume of venture investments into the Russian IT sector in 2012 may grow more than by 50% and will exceed \$450 million.

According to the Fast Lane Ventures company, the volume of investments into the Russian Internet companies in 2011 almost doubled — from \$225 million (59 deals) to \$540 million (215 deals). Thus, the analysts consider that approximately the same amount remained in the shadow.

In the last two years, 61 startups obtained more than \$20 million grants. Earlier, this value was nearly equal to zero according to Fast Lane Ventures.

In many respects, appearance of the considerable number of grants is caused by the Skolkovo Foundation operations. Thus, an increase in the volume of venture investments into perspective hitech companies may be expected in the next years. In June 2012, the Skolkovo Foundation concluded the

Accreditation Agreement with the Russia Partners direct investment fund, according to which Russia Partners will have the access to the information on the Skolkovo participants to select projects for further investments. The amount of the investments may reach \$10 million in the next 2 years.

The Skolkovo innovation center, which has not been built yet but virtually accommodated several companies already, has declared that one of its residents would go through IPO in the near future. The VIST Group (the main product of which is the Smart Pit end-to-end solution for the mining industry) is planning the initial public offering. The company plans to place 25% of shares in the Russian financial market that is expected to attract

up to 500 million rubles (about \$17 million).

One more significant event connected to attraction of investments should be noted. At the beginning of 2012, EPAM Systems held the IPO at the New York Exchange and attracted \$72 million. After the trading the price of company shares grew several times that shown the investment capacity of companies from the software development service segment. EPAM Systems' achievements were especially significant against the relative failure of the most expected IPO of the year — the Facebook IPO. EPAM Systems' success ignited other service segment leaders in their preparation for IPO.

INVESTMENTS INTO FOREIGN COMPANIES

In the recent years Russian companies started to actively invest into other countries' hi-tech economy sector. Besides, takeovers of foreign companies are going on. Russian entrepreneurs who are looking for new ways to gain profit are interested in this phenomenon, as well as the Russian government is considering it as a form of integration of the Russian economy into the global one. Acquisition of large shares in successful foreign companies is a way to get the management experience and find opportunities for cooperation between these enterprises and the Russian IT companies. In certain cases, Russians obtain ready-to-use technologies that may be developed and used in their own business. Besides, the money earned from purchase and sale of shares may return to the Russian IT sector. Judging by the successful transactions, this process is already in progress.

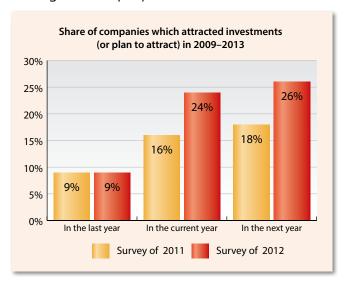
First, it should be mentioned that after the Facebook's IPO, the Russian shareholders of this company (Mail.Ru Group, Alisher Usmanov, Yury



Milner, Mikhail Frolkin and others) became the owners of shares with the total cost of several billion dollars. If they sell their shares, they will receive several times more money than they had recently invested. For example, in 2009 Mail.Ru Group acquired 2.4 % of the Facebook shares for \$200 million. After the IPO, the cost of these shares exceeded \$2 billion. Although the Facebook stock value then fell down, Mail.Ru Group remains in the black.

Russians show their interest for many other American hi-tech companies. Mail.Ru Group, Alisher Usmanov's and Mikhail Frolkin's DST Global fund own shares of Zynga, a US vendor of online games. In the summer of 2011, the DST Global fund acquired about 5% of Twitter shares for \$400 million. At the end of 2011, the Runa Capital venture fund became an investor of the BigTime Software producing the cloud software. Leonid Boguslavsky, one of the most well known Russian investors, launched a venture fund with the amount of \$100 million in the USA. The new fund will invest into startups in the software industry, cloud computing — and over time — in e-commerce and Internet services.

In the last 1–2 years, the Russian companies' investments and acquisitions also took place outside of the USA. In the spring of 2012, EPAM Systems expanded its presence in the market of North America, having purchased for \$17.4 million Thoughtcorp, a Canadian software developer that has customers in retail, telecommunications and finance. In the autumn of 2011 the DST Global fund headed a new round of investments into the Swedish developer of the Klarna payment system, where \$155 million were invested. Yandex declared the beginning of the new Challenges program for startup search around the world (Yandex is already one of investors of the Face. com Israeli startup). In the spring of 2012, Transas acquired Revue Thommen Swiss which manufactures equipment for avionics. In addition, the LANIT group acquired Evident Point Software, a Canadian software developer for electronic books. In the summer of 2012 a small Russian antivirus developer acquired a Hungarian company VirusBuster. In the autumn of



2011, a group of investors, which includes the DST Global Russian investment fund, declared its intention to buy out the shares of the Alibaba Group Chinese Internet holding from its employees and shareholders for the total amount of \$1.6 billion (the transaction completion has not been reported yet).

THE GLOBAL SOFTWARE MARKET AND WAYS TO INCREASE SALES FOR RUSSIAN SUPPLIERS

According to the Gartner company as of July 2012, the global IT expenditure will reach \$3.6 trillion in 2012 which is 3% more than in 2011. Some IT market segments will grow much quicker than others will. For example, the global corporate sector expenditure on public cloud services will grow from \$91 billion in 2011 to \$109 billion in 2012. By 2016, this segment volume will reach \$207 billion. In 2012, the IT services expenditure will increase up to \$864 billion (the growth is 2.3 %). The corporate software expenditure will increase by 4.3 %, up to \$281 billion.

IDC predicts that in 2012 the global IT expenditure will grow by 6.9 % and will reach \$1.8 trillion. The technologies that are already changing the IT branch image — smart phones, media pads, mobile communication networks, social networks, and Big Data – will bring up to 20% of this amount. Thus, in 2012 more than a half of the overall IT expenditure growth will fall on the share of burgeoning markets (i.e. except for North America, Western Europe, Japan, Australia and New Zealand). Thus BRIC countries (Brazil, Russia, India, and China) and some other quickly growing markets will be in the lead.

The IDC analysts consider that technologies used in mobile devices, cloud services, social networks and Big Data start turning into the backbone directions in IT industry development. The expenditure on these technologies grow approximately by 18% per year.

By the Gartner analysts' estimates, in 2012 the size of the global SaaS (Software as a Service) market will reach \$14.5 billion that is 17.9% more than the last year's index; by 2015 it will increase up to \$22.1 billion. According to Gartner, North America remains the largest SaaS market. This year its volume will increase up to 9.1 billion dollars. In Western Europe SaaS expenditures will exceed 3.2 billion dollars, and in the Asian and Pacific region (excluding Japan) it will grow up to 934.1 million dollars.

According to the Gartner forecast the global expenditures on information security (IS) services will grow approximately by 13% in 2012 and will reach \$35.1 billion. Russian companies are traditionally strong in the sphere. However, due to their specifics, very often software solutions and their vendors will be selected based on political reasons, instead of the quality and cost analysis. Nevertheless, an increase in demand for Russian information security solutions in the domestic market may be expected. The Russian

government is worried about enforced attraction of foreign vendors of software and hardware for processing, storage and communication of information for the national security related systems. As a result, this summer the Security Council of Russia provided a document that defined the policy in the field of protection of ERP systems for crucial infrastructure and for critical applications in Russia and assumed a wider use of Russian vendors' services and solutions.

A rapid growth of the global telematic services market is expected to make a strong impact on the export of the Russian navigation and traffic monitoring applications. The GLONASS system offers certain advantages to Russian developers.

Information on the world IT market dynamics is extremely important for the Russian software exporters. However, it should be mentioned that they win competition with international vendors and providers irrespective of the situation in the global market. Their incomes increase due to advantages over competitors rather than only to a growth of the global market. Russian software companies represent no more than 2.5% of the global software market (including both software and services) but this share increases approximately by 0.1% every year irrespective of the world market growth or decline.

Within the present survey we have questioned top managers of several Russian leading export companies in order to learn their views on changes in the Global IT-market which bring major impact on the Russian IT-industry. Their answers showed that they noted the same changes as Gartner and IDC analysts did while enumerating changes in the Global IT market.

First, it is a rapid growth of demand for solutions for mobile devices (use of HTML5, development for iOS, Android, and Windows 8). A great number of new specialized mobile solutions for health care, logistics, financial and corporate sector are expected to appear. The same applies to development of the existing mobile operating systems for better usability (transition to communications in natural languages) and an increase in the number of various services.

Russian developers consider that their activities will be affected by further development of cloud technologies, including the open source cloud technologies. The demand for experts who are able to manage complex cloud solutions effectively, have good knowledge of API and restrictions of these solutions will considerably increase. At present, Russia does not have enough engineers in the field. Customers abroad and in Russia pay the greatest attention to the following issues: cloud platform optimization, solving of security problems, personal data safety and access management in cloud applications.

Business Intelligence (Big Data bulks analysis and interpretation) should be noted as a dynamically developing segment. In addition, an increase in the number of business applications operating with

unstructured information and using semantic methods to find relevant data is expected.

A great demand for various solutions designed for social networks, which are a powerful B2C tool for customer attraction and products promotion, is expected.

Telecom operators' transition to the VoIP technologies will positively affect many Russian companies' business. The tendency of VoIP deep penetration into the everyday life makes the Russian software solutions demanded both in the B2C and in B2B segments. If earlier video conferencing was a topmanagement prerogative because of the high cost of the required hardware, today — software video conferencing systems ensuring high communication quality via the Internet are available. Their prices are accessible which allow both big and SME to use them on each workplace at every office.

In the recent years, Russian custom software developers lost the low labor cost advantage. At the same time, the enhancement of their positions in the international ratings and the steady growth of income, both witness a very general fact that the price per hour does not play the most important role in the process of choosing the right software development service provider any more. Customers of high-tech enabled projects pay more and more attention to creativity and to skills of engineers (both in technologies, in culture and in communications). Nevertheless, Russian top managers expect that due to the evolved labor cost in Russia the software product export growth will be higher than that of the software development service export.

In order to gain advantages from the changing situation in the world market, Russian software companies need to increase their adaptivity to changes via implementing more effective business processes and new information technologies, to develop their own R&D and to invest in staff retraining constantly. In addition to development of technological skills, companies shall change the service rendering models and procedures to match the pay-per-use model. Thus, they would develop their communication' and others non-technological skills (collaboration with the customer, flexible adjustment to the existing structure, etc.).

Russian Although small custom software developers cannot compete with large companies in high-marginal orders, they stand a good chance for successful operations in foreign markets if they can find their technological or marketing niche. Small companies often operate more effectively than the large ones in implementation of small and specialized projects. The cost of these companies' services is lower, they are more flexible and agile, they react to customer needs quicker than large companies do (where small projects may be lost or not managed properly because of the business scale).

Therefore, small developers will always be present in the market. Creation of the portfolio and



reputation is important for very small companies and startups, but this is possible with the crowd-service collaboration tools, such as oDesk, Elance, and Amazon Mechanical Turk.

Small software product developers have the same problems with the staff expenditure growth but their perspectives are generally better than those of similar-sized service companies are. However, in the market with low competition (which is caused by a high level of the monopolization and due to the absence of needs for innovations in large domestic state and commercial enterprises) innovative technological startups are to be export-oriented, which is difficult and expensive.

The Russia's accession to the World Trade Organization may affect the Russian software export companies' operations, but indirectly. The software and software development services market in Russia was initially built in conditions corresponding to the WTO and ITA (Information Technology Agreement) requirements. There were no restrictions on foreign software deliveries to Russia. Probably, this and the fact that the deliveries of software and software development services are formalized in the form of cross-border service transfer (which is not connected with the Customs processing) led to such a rapid growth of the software development industry.

The markets of the USA and Western Europe are still the most perspective for the Russian service companies. The US market size and outsourcing maturity is a great advantage. Western Europe (the German-speaking countries, mostly) allows increasing the export due to cultural and geographical closeness to Russia. Product companies, in addition to the USA and Western Europe, are also interested in the

markets of Japan, Korea, China and in the nearest future — Latin America and Arab countries. The demand for high-quality software development services in Russia is still growing, mainly in the telecommunication industry, in the field of financial services as well as in the public sector.

Software companies expect support from the Russian government for creating a positive image of the Russian developers abroad, for promoting their solutions and services in the world market, for enhancing democracy, political and economic stability within the country, for establishing fruitful relationships with the West Europe and the USA, for facilitating import of technological equipment necessary to develop and to test software for complex projects.

Although many Russian software companies already use tax incentives and positively estimate their provision, they still call for further legislative base improvement which would allow the export companies to incur lower tax expenses. Support of software industry enterprises implies that the state itself should be a large consumer for innovative technological companies as many tasks to be implemented within e-Government can be solved by domestic software developers.

In addition, only the state can cope with such global problems as qualified staff shortage or needs for investment in fundamental science (the state shall take the initiative on training specialists for the IT industry and promoting the IT jobs, either the state should assure a transparent and effective providing of financial resources for conducting fundamental research).

CHAPTER 4.

GEOGRAPHICAL REACH AND MAIN VERTICAL MARKETS OF THE RUSSIAN SOFTWARE DEVELOPMENT INDUSTRY



MAIN GEOGRAPHICAL MARKETS

The importance of the North American market (the USA and Canada) for Russian companies considerably increased in 2011 after its steady decrease in the last 4 years. 45% of the respondent companies operate in this market and 30% of them consider it as the key one. However, it should be noted that the share was greater in 2007. Apparently, the American market became attractive again for some companies (both large and rather small) that can be explained by a certain economic recovery there and by problems in Europe. Still Europe has also attracted higher attention of Russian software companies which may mean a general growth of the industry and of its aspirations to developed markets.

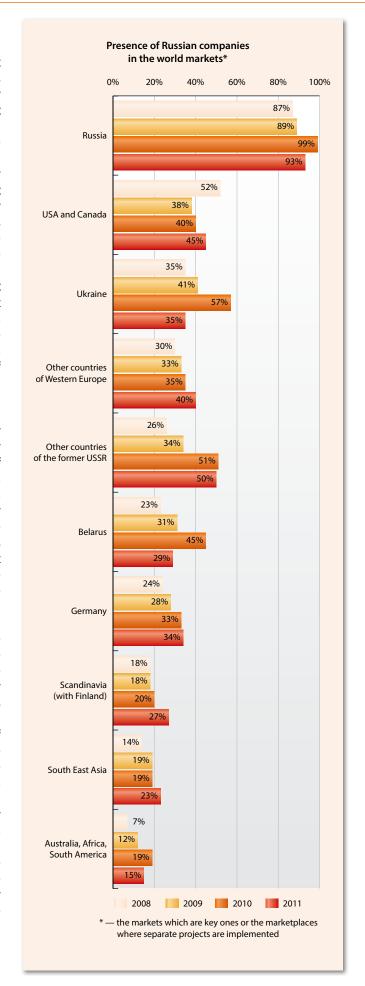
Nevertheless, the share of companies that operate in the Russian market (as well as those that consider it as the key one) reduced slightly. This figure also decreased for the markets of Ukraine and Belarus. It can be assumed that some companies have reoriented from the market of Russia and of neighboring count<mark>ries towa</mark>rds the American and some other markets. Changes in the respondents' structure and the increase of the share of medium and large companies that historically were mainly focused on the American market are another factor that influenced geographical interests of respondents. In any case, following the survey results it can be concluded that a shift of marketing interests of Russian exporters from CIS to the USA and to other countries took place. It should be noted that the share of companies for which the market of other countries of the former USSR is a priority has increased (except for the markets of Ukraine and Belarus, which are close to Russia) whereas the indicator of presence remained almost the same.

Medium and large companies are more oriented towards the global market because they have more resources to promote their services and solutions in the countries which are far from Russia in terms of culture and geography. Less companies are and less their marketing budgets are — more they consider markets of Russia and of the CIS countries as the main ones.

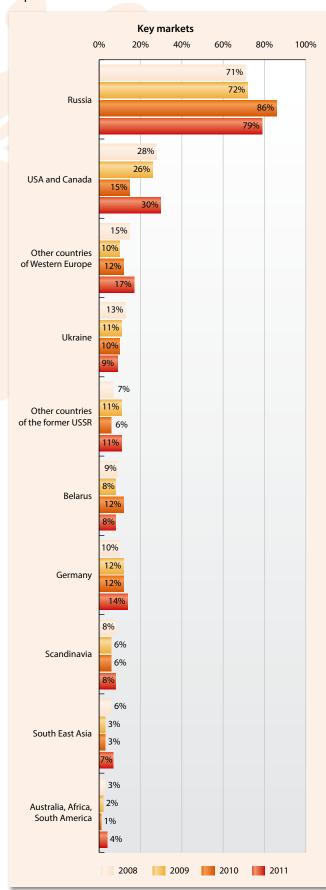
As in the previous years, the concentration of companies that operate in the foreign markets is the biggest in St. Petersburg. Moscow is in the lead by the share of exporters that are mainly oriented towards the markets of the former USSR republics.

Software product developers have much greater representation in such exotic for Russia markets as Australia, Africa, South America and South East Asia. The share of Russian software vendors that operate in these markets is 2–3 times higher than the share of custom software developers. For example, for South East Asia these figures for product' and service companies are 14% and 42% respectively.

In the last two years, the opening of sales and local customer technical support offices was declared



by several Russian companies: Group-IB in the USA, Softline in Peru, ABBYY in Kazakhstan, Yandex in Switzerland and Belarus, Kaspersky Lab in the Republic of South Africa.



ABBYY acquired 100% shares of the Connective Language Services American for localization of their solutions and for implementation in the US market.

In October 2009, a Russian company T-Platforms announced its Partnership Agreement with Digital Waves (an Indian IT company) to promote their solutions in the Indian market.

In June 2010, Playnatic Entertainment announced the agreement with Sina Data Coin, the first Russian-Iranian agreement in the IT sphere.

In August 2010, Luxoft reported the opening of its technical development center in London.

In May 2011, Entensys, a Russian information security software developer, signed a Cooperation Agreement with ITXON, a Polish software distributor.

In January 2011, an office of Vitim was officially opened in Finland. This company will become the main European partner of the Speech Technology Center in St. Petersburg and will be engaged in development of the software in the sphere of speech record, processing and analysis.

In June 2011, the Agent Plus Russian software developer started negotiations with integrators from the USA and Canada regarding American market launch of their corporate mobile application designer.

The NIS GLONASS company has registered the NIS GLONASS Pvt Ltd subsidiary in India, which will be engaged in the large projects which require system integration, and in setting up of a distribution network for its solutions in the consumer market. It is supposed that the subsidiary creation will help to promote the GLONASS navigation technologies in the Indian market.

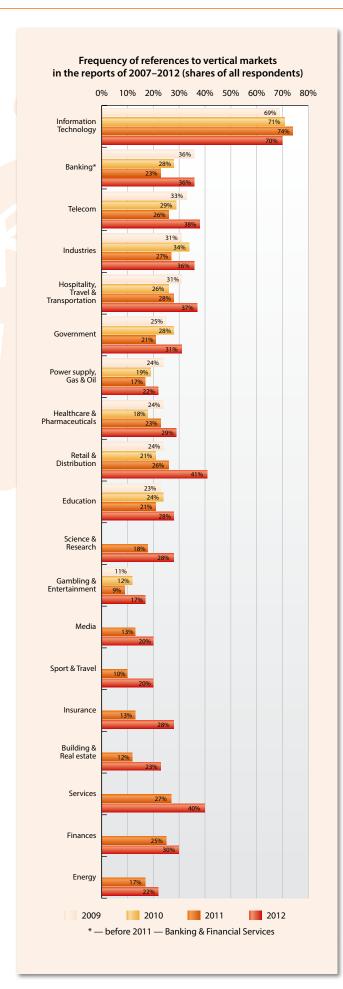
VERTICAL MARKETS

Judging by an increase in the rate of respondents' references for vertical markets, one could say that Russian software companies expanded the range of their customers in 2011 (this figure increased from 4.36 to 5.96). However, the share of companies that mentioned Information Technologies as their IT-market did not increase.

There is a considerable growth of references in all other vertical markets. In part, it can be explained by the change of the respondents' structure, where the share of medium and large companies (offering a wider range of solutions for vertical markets) has slightly increased.

GEOGRAPHIC DISTRIBUTION OF MARKETING AND SALES OFFICES OF RUSSIAN COMPANIES

The number of companies which have their offices in different countries (regions) varies considerably from year to year. It increases and sometimes decreases, which is an evidence of a rather high



estimations' error. Therefore, the share of the respondent companies that have their own trade offices can only be estimated approximately while looking at results of the survey for several years.

Thus, it turns out that 35–40% of companies have offices for sales and support in other countries or in other cities (21% of companies have 2 and more offices, 10% of companies — 3 and more offices). Following the results of the last 4 years, an obvious increase in this figure is not shown, although many companies permanently report their intentions to open at least one new office in the next 2 years.

Nevertheless, it should be noted that almost two times more companies have similar plans in the Spring of 2012, than they have had last year. 20% of companies are going to open at least one sales office mission. A sales office will be the first one for nearly a half of respondents (9% of all respondent companies or 14% of those which currently do not have any office). Thus, the software exporters show a particular interest to get offices in the markets of Western Europe and Russia. In addition, they are entering the markets of South America, Middle East and Africa more actively, but these markets still attract an insignificant part of the respondent companies (2–4%).

GEOGRAPHIC DISTRIBUTION OF DEVELOPMENT CENTERS

According to the survey, 35% of the respondent companies have their dedicated development centers in other regions or in other countries. The share of these companies varied from 25% to 40% in the data provided by respondents within recent years.

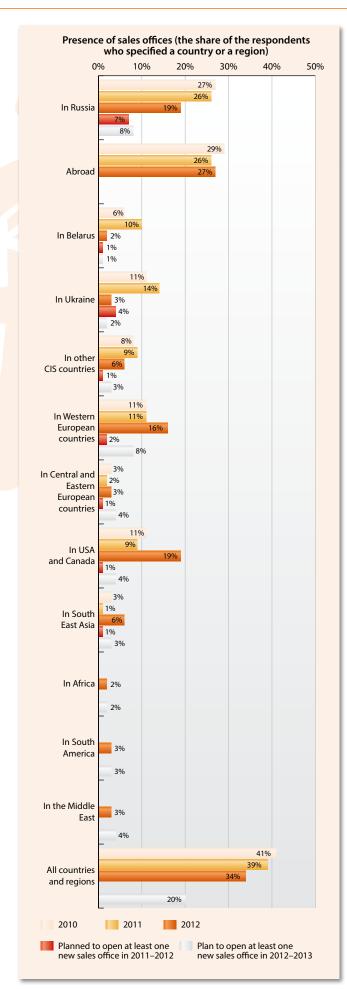
16% of companies have two and more development centers while 7% of respondents have three development centers and more.

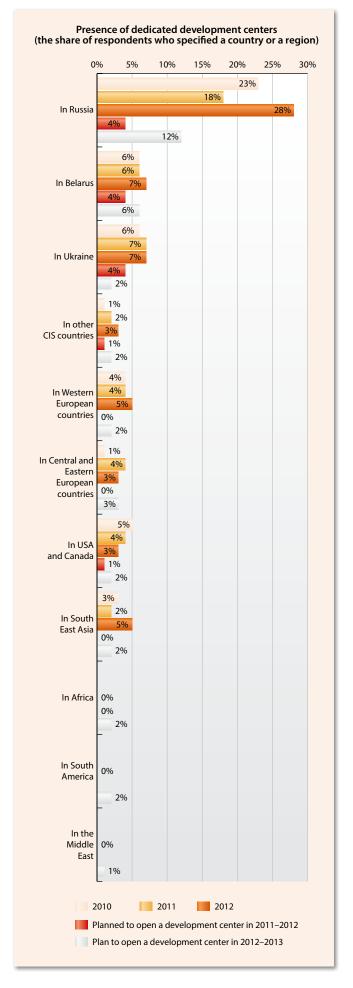
More than a year ago, after the termination of an active phase of the world crisis, Russian software business began to plan creating new production sites in other regions of Russia or abroad. The priority is more often given to Russia and Belarus. However, companies are now considering the labor market of Western Europe. It especially true for Greece and Spain where the high unemployment is observed, which means availability of unemployed developers of high quality with rather low salary requirements.

The respondent companies have their distributed production sites in 46 cities of Russia. One interrogated company accounts for 1.82 distributed development centers.

Development centers in Belarus have been set up in: Minsk (7), Mogilev (3), Grodno (2), Vitebsk (2), Brest (1), and Gomel (1).

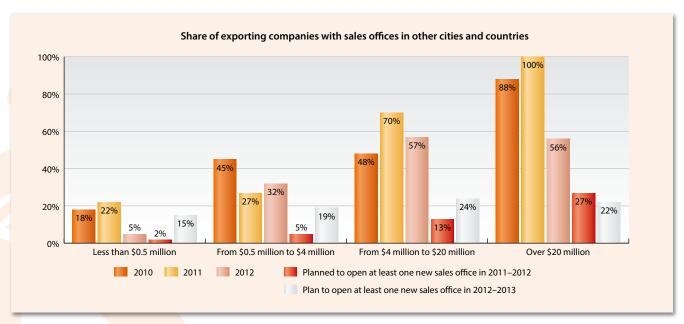
Development centers in Ukraine: Kiev (4), Dnepropetrovsk (3), Odessa (2), Kharkov (2), Sevastopol (1), Kherson (1), Lviv (1), and Vinnytsa (1),

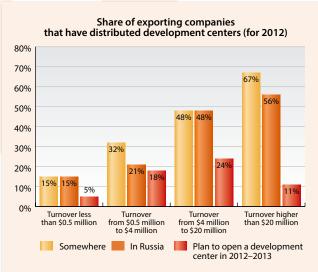






Chapter 4. Geographical Reach and Main Vertical Markets of the Russian Software Development Industry





Anthracite (Lugansk Region).

Development centers in other former republics of the USSR: Vilnius (2), Riga (1), Astana (1), and Karaganda (1).

Within the last year, SmartLabs and Parallels declared opening of their own development centers in St. Petersburg. Artezio and DataArt opened their development centers in Kharkov and Dnepropetrovsk, respectively.

Earlier, development centers of Luxoft in Vietnam and services development centers of Exigen in China have also been created.

Rating of Russian cities (by the number of the company head offices, sales offices and dedicated development centers)			
1	Moscow 54		
2	St. Petersburg	38	
3	Novosibirsk	9	
4–6	Nizhny Novgorod	7	
4–6	Moscow Region	7	
4–6	Rostov-on-Don	7	
7–9	Voronezh	5	
7–9	Omsk	5	
7–9	Samara	5	
10–13	Izhevsk	4	
10–13	Kazan	4	
10–13	Krasnoyarsk	4	
10–13	Yaroslavl	4	
14–25	Vladimir	3	
14–25	Tyumen	3	
14–25	loshkar Ola	2	
14–25	Kurgan	2	
14–25	Orel	2	
14–25	Penza	2	
14–25	Ryazan	2	
14–25	Saratov	2	
14–25	Tver	2	
14–25	Tomsk	2	
14–25	Tula	2	
14–25	Chelyabinsk	2	

CHAPTER 5.

HUMAN RESOURCES AND LABOR MARKET



According to Microsoft study, from 2003 to the beginning of 2010 the number of programmers in Russia increased from 212,000 to 350,000. Thus, about 20,000 new professional programmers become available in Russia every year. Microsoft estimations are based on sales of licenses for development tools, DBMS and other programs used by programmers.

Data provided by Microsoft fit information of the Ministry of Telecom & Mass Communications of the Russian Federation according to which in 2008 Russian higher educational institutions graduated 19,000 programmers.

According to the Association of Computer and Information Technology Companies (APKIT), universities graduate annually at least 60,000 IT students, one third of which started to work as software developers. At the same time, from the same research it becomes obvious that about 75,000 IT engineers are required annually to the market.

We must take into account that availability of new programmers in the Russian labor market in the past decade was partly guaranteed by labor migration from the neighboring countries (first of all, from Belarus and Ukraine). However, foreign engineers inflow was slightly reduced during last 3 years and may not have a considerable influence on the Russian labor market any longer.

The number of engineers having the required qualification is still growing thanks to expansion of specialized Chairs created by large companies in the leading Russian universities and because of training centers organized by the leading foreign vendors and by large Russian IT companies. Such centers provide participants with additional professional training on a commercial basis. One more stimulus for IT-training and a factor which increased programmers' prestige significantly was the growth of the salary level (the average software developer's salary exceeds the average salary of other engineers by 30%-50% and at least 2 times exceeds the level of the average salary across Russia). In addition, industry Associations managed to push the Ministry of education and science to increase the number of state-financed students in IT departments of universities.

Based on data provided by APKIT we can calculate the total quantity of IT engineers involved in the Russian economy. This total quantity is not less than 1 million people (these figures coincide with the Russian Microsoft office estimations with pinpoint accuracy). These figures include not only IT companies' staff but also engineers in IT department of various companies, organizations and institutions of all economy sectors as well.

According to the Ministry of Telecom and Mass Communications of the Russian Federation, 302 thousand people are employed in IT sphere in Russia. Their share together with the staff of telecommunication companies and enterprises specialized in mass communications constitutes 1.52% of the total number of Russian employees. Ministerial

officials consider that this indicator is much lower than in many European countries, where it exceeds 3%.

The Ministry of Education and Science of the Russian Federation provided its data on the number of IT employees according to which there are 370,000 engineers in this sphere.

RUSSOFT Association experts estimate the number of profile software developing companies' staff approximately at 100–110 thousand people, where 65–70 thousand engineers work for export (provide software development, support services and develop software products for export).

It should be noted that, according to a number of reputable sources, Russia has a huge potential in the software development sphere. The Microsoft research results which were published in spring of 2010, testify that about 850,000 Russians have programming skills.

Among them, there are university students who have necessary knowledge and skills but have not tried to earn their lives by software development yet.

According to the Boston Consulting Group research which was carried out on Google demand, 130,000 people are employed in Russian Internet companies. They work in 2,300 Russian companies where business is mainly based on Internet technologies. In 2009, the revenue of these companies reached \$23 billion.

Unfortunately, the major part of the data on the number of IT engineers in Russia is at least two years old. Considerable changes hardly happened for the last year but the up-to-date data is desirable for better understanding of the situation in the labor market and in the sphere of IT training. Neither the Russian Federal Service of State Statistics, nor separate ministries possess the relevant update information despite the fact that it is vital to make correct decisions concerning development of this hitech economy sector.

According to the Career.ru research center, 2 persons on the average applied for one IT related vacant position in the spring of 2012 that is a very low figure (in some specializations there was no competition among the candidates at all). It is significantly lower — about one person per one position — among young engineers.

The government has already been trying to change the situation in the field of IT training. At the end of 2011, Vladimir Putin, the Prime Minister of Russia approved the list of professions in higher educational institutions and the list of scientist specializations that correspond to the priority directions of the Russian policy aimed at modernization and technological development. The list included about 100 positions, approximately one third of which is dedicated to the ICT sphere. Since 2012, students and scientists who have chosen the priority specializations will apply for the president and government grants which will be rather high by Russian standards.

The Ministry of Education and Science of the Russian Federation approved the three-year engineering personnel development program, where



at least 15,000 people are supposed to be trained. This program will be implemented based on the public private partnership. That Ministry is ready to finance up to 50% of the employers' expenses for engineer training. \$6–11 million are supposed to be annually allocated for these purposes from the ministry federal budget. This program provides professional development in Russia, as well training abroad. Similar support measures are taken (or being prepared) at the regional level.

EMPLOYEE RECRUITMENT AND HEADCOUNT REDUCTION

Results of this survey show that in 2011 Russian companies' recruitment was more active than the year before. In particular, the share of respondents that did not hire any engineer for the year was considerably reduced (from 28% to 15%). There was also an increase in the average number of the mentioned specializations where most employees were recruited (from 1.16 to 1.73). An increase in the staff turnover rate from 4.5% to 6% means a competition growth in the labor market and reflects head hunting activation. At the same time, this figure remains at rather low level in comparison to other countries (this is one of competitive advantages of Russia).

Russian companies did not exactly entice employees from each other but employed university graduates and extended the staff of their foreign development centers. The number of personnel in the interrogated companies increased by 4.1% — thanks to recent students. In 2011 the recruitment of university graduates was as intensive, as high as it used to be before the financial crisis when the demand for inexperienced employees reduced.

Traditionally, St. Petersburg labor market is the most tough. Within several years it is characterized by the highest staff turnover rate. Besides, the least number of companies which employed nobody during the

last year are located in St. Petersburg. The city also stands out in terms of employment of university graduates. University graduates comprise 8.4% of the interrogated St. Petersburg companies' staff (the average figure for Russia is equal to 6%).

The shares of companies that did not recruit any employee cardinally differ for two capitals (Moscow and St. Petersburg) and for regions — 10.45% and 35% respectively. Apparently, the staff deficit in regions did not reach such a high degree as in the Russian capitals. Among respondenrs from both capitals there are much more companies which were active in the labor market. Among them, large companies are in the lead;

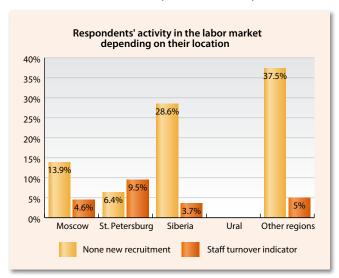
in this case, the company size is more important than its location.

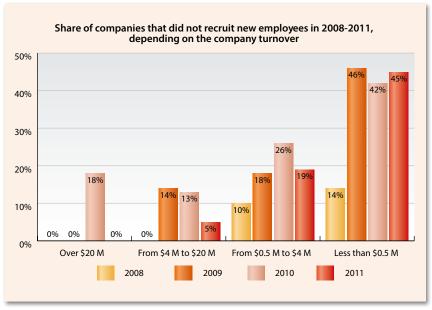
In the recent years the principle was the same larger the company, lower the staff turnover rate,

that was indicative for development of business consolidation. However, according to the results of 2011, the group of companies having \$4–20 million turnover broke this rule. Most likely this was a consequence of random factors as there are no objective preconditions for this. In particular, the additional analysis showed that a number of medium-sized companies are diversifying their business when they create spin-offs, and the whole divisions are becoming independent legal entities. This phenomenon indicates that the business is in full development, and it cannot be measured in terms of staff turnover only.

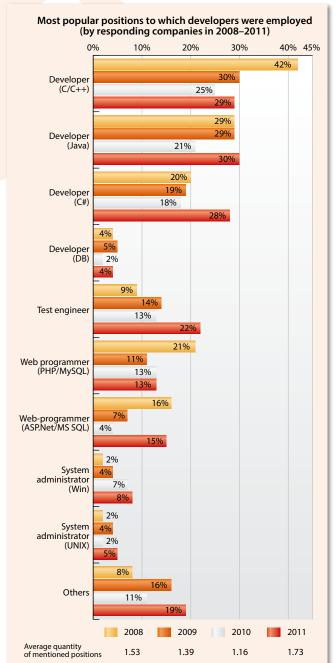
It is worth noticing that among developers which were in the highest demand, the interrogated companies showed their significant interest in hiring test engineers and web-programmers (PHP/MySQL).

As in previous years, more company's export share in its aggregate income is - more active is the company in the labor market. Only 6.5% of companies which









have 50%+ income in sales abroad, employed nobody during 2011 (this figure among others companies was as high as 18.5%).

According to the conducted survey the average number of employees was 229 people per one company, which is by 37% more than the year before. Partly this growth reflects the industry growth and consolidation process, but a decrease in the share of small companies that provided their data also considerably affected this figure.

According to the plans of the interrogated companies, the overall number of their employees is expected to increase approximately by 12% in 2012. 66% of the

interrogated companies plan to extend their staff (a year ago — only 51%).

LACK OF ENGINEERS

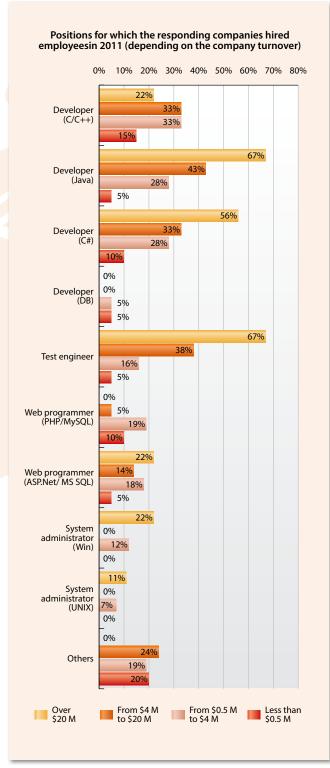
The lack of software development engineers became a problem more than a year ago. Both the results of this survey and those of the research conducted in 2011–2012 by recruiting agencies bear evidence of this. Although the share of the interrogated companies that do not feel an acute lack of experts increased, it occurred only due to a minor share of small companies that are mainly inactive in recruitment. The comparison of the figure for the companies having the turnover over \$4 M is more correct in this case, especially because they largely define the labor market situation. In this group, the share of companies which do not feel an acute lack of engineers reduced from 44% to 27% during the year.

Most of companies having the turnover over \$4 M feel the lack of Java developers — 35%, C# developers — 23% and test engineers — 19%. A year before the same positions were in deficit, except for the test engineers, recruitment of which recently became a problem for the majority of large companies. This problem existed few years ago but at that time it was partially solved through organization of several training courses that were jointly arranged by a number of companies (in particular, with RUSSOFT Association support).

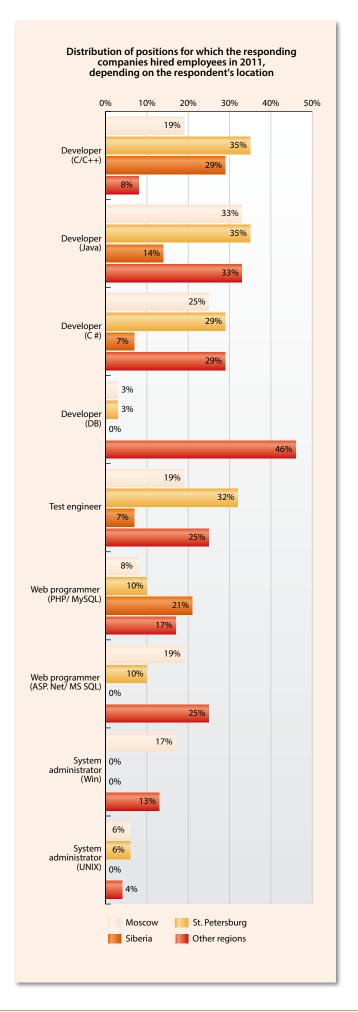
Unlike other regions, free software (PHP/MySQL) database web programmers were the scarcest in the cities of Siberia that was also noted the year before.

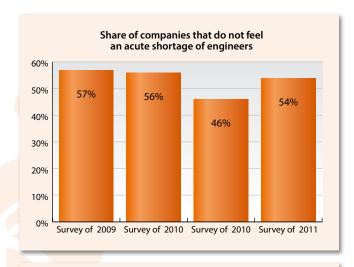
Based on the difference of export share it should be noted that 45% of the foreign market-oriented companies experience shortage of Java developers whereas this figure is equal only 17% for companies mostly oriented to sales in Russia. There is no such great difference in other positions.

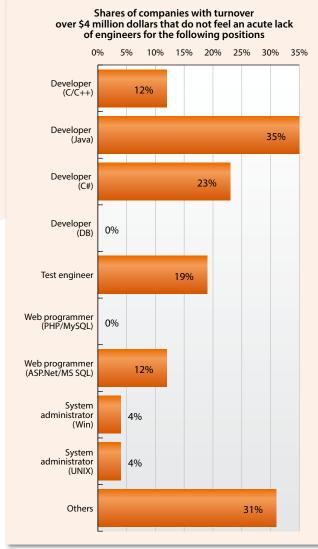
The data of recruiting agencies and job search portals are generally agreed with the survey results.



However, there are considerable discrepancies which are explained, first, by a different selection of the interrogated employers as well as by the different methodologies. For example, the Rabota@Mail.Ru job search portal, based on the analysis of the number of vacancies and CVs placed at the beginning of 2012, drew a conclusion that the most scarce positions are C ++ programmers (0.9 summaries CVs per one position), Java programmers (1.5 CVs per one position) and PHP programmers (1.1 CVs per one position). The difference is that the companies which took part in our survey did not recognize PHP

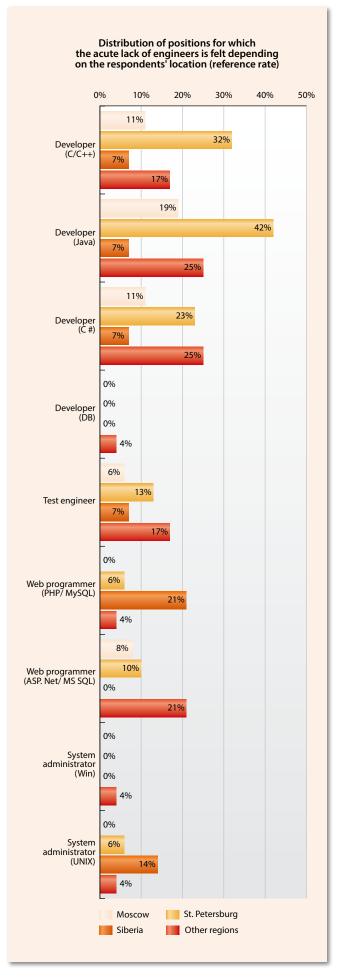






programmers as the top problematic position. That is understandable because among the respondents of our survey there were no Internet companies which recruit a lot of PHP programmers.

The Luxoft Personnel recruiting agency, among the global tendencies affecting Russian labor market, first noted rapid development of the mobile communication industry and social networks. As a result, mobile platform-based software developers



and web developers (Java, C/C++, Python, PHP, etc.) are in a greater demand.

FOREIGN LANGUAGE SKILLS

About 68% of the interrogated companies' staff has a good command of English, 8% — of German, and 8% — of any other foreign language. In comparison to the last year, these figures have not changed (considering the margin of error). The share of the employees who know English well is rather high. It has grown insignificantly for some years (it is also confirmed by other sources). However, the survey also showed that small companies and regional companies experience a lack of English-speaking employees. In the regional companies only 35–40% of the profile employees have fluent English.

Russia is not the last in the list of countries where people speaks English well but Russia is far away from the top positions in the list. According to the research of the Education First (an international language school), in terms of the average level of English among adults Russia takes the 32nd place among 44 countries. In this rating Russia is slightly behind Brazil, China and India but some potential competitors on the world market of services in software development (such as Turkey or Vietnam) have lower level of English.

However, in India with English being the second state language, this low figure is connected mainly with the big population (main part of which lives in the countryside and does not participate in the IT creation). The same refers to China.

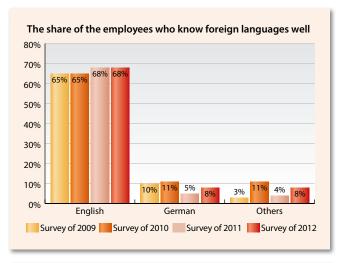
Russia is far after the Eastern European countries, but the chief reference is Sweden and Finland which are on the fourth and fifth places of this ranking respectively and having achieved considerable successes in the sphere of high technologies.

The similar situation is for the level of proficiency in business English, which in 76 countries was measured in 2011 by the Global English company. In Russia, this level reached 3,6 points (that is higher, than in Colombia (2,75), Brazil (2,95) and Turkey (2,97), but it is much lower, than in Philippines (7,11), India (5,57) and some other large countries).

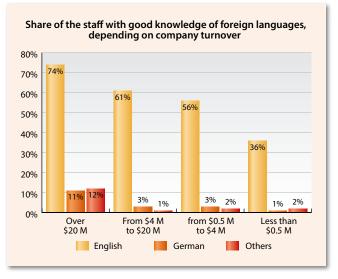
The existing lag prevents Russian companies from creation of competitive solutions and services and even more — from being promoted in the world market.

Skilled trainers of English in Russia do not work in schools and universities because of the low salary level in the state educational institutions. This problem should be solved by the government. Otherwise, the high-technology sector of economy will not correspond to the high potential of engineering community which is available in Russia.

It is especially important to enhance language training in regional universities because many of these institutions provide very high education level in the field of mathematical and technical sciences,







but cannot provide their graduates with competitive positions in foreign languages skills.

SALARY

As the respondent array structure has considerably changed this year, it is more correct to determine the change of the average salary size indicator only by companies having the turnover that exceeds \$4 M. The average salary of all employees of



this category (of both newcomers and experienced developers) increased by 18% during the year and reached \$2280.

The income of the skilled developers and of managers grew slightly quicker — by 19% and 18% respectively. The beginners' salaries increased by 14%.

Year before the average income of all employees and managers increased to a lesser extent — by 9%. We may say that the salary growth most likely has been accelerated. This is particularly true for the export companies which specify more rigid requirements to candidates for available positions than companies mainly oriented to the Russian market. The labor shortage problem is especially pressing for such exporters.

The average salary of experienced developers and managers appeared the highest in St. Petersburg, although Moscow companies are supposed to be the leaders by these indicators. Although the largest software developing companies are located in Moscow, a considerable part of their staff does work at development centers in regions and outside Russia while the average salary is calculated for all employees (not only for the Moscow residents). In any case, the recruiting agencies, based on their own monitoring of salaries in different cities, noted that the gap between St. Petersburg and Moscow in terms of IT-engineers' income was reduced within recent years. In the previous time Moscow companies used to pay to their employees about 1.5-2 times more than in St. Petersburg, but now the difference in payment reaches 20% only. According to the official statistics, the gap between Moscow and St. Petersburg in the average salary by all positions (not only in the IT sphere) decreased from 40% to 23% during 2011.

If we compare the situation in two Russian capitals to that in regions, there is no significant alignment of salaries. The difference depending on the city and on the position is between 50% and 100% (sometimes even more). Commercial companies and state organizations in Moscow and St. Petersburg pay to their IT-engineers much more than employers in regions. The difference by the interrogated software export companies is not so great and is 24%–44%, but along with the results of previous years' surveys it also testifies that there is no obvious alignment of software developers' salaries between the two capitals and the regions.

In Moscow and St. Petersburg, an average monthly salary of beginning developer from a company having the turnover over \$4 million is about \$1,000, of a skilled engineer — \$2,700, and of a manager — about \$3,000. However, the range of the specified salaries is rather wide. For example, the interrogated companies specified the beginner developer's average salary in the amount of \$250–\$2,000. Nevertheless in most cases it is within the limits of \$700–\$\$1,000.

STAFF TRAINING. UNIVERSITIES

Due to the escalating situation in the labor market, the vast majority of companies are forced to hire inexperienced fresh graduates. 28% of the interrogated companies did not hire any university graduates in 2011. Thus, this figure for the companies having turnover over \$4 M is equal to 7.7% (the year before it was 20.6%).

If previously young engineers were gaining experience in small companies and then transferred to larger ones, in recent years they have good chances to get a job in the leading software companies right after the graduation. It is to note that up now small enterprises cannot hire even university graduates because of high competition in the labor market.

As it used to be, it is easier for graduates to be engaged in the companies which are more oriented to the Russian market than in the export driven companies. This is explained by the fact that export companies have more serious requirements for their staff qualification. Companies with the share of export in their revenues over 50% have 2.8% fresh graduates in their staff, while others — 7.4%. A year before, the difference was also big but slightly smaller.

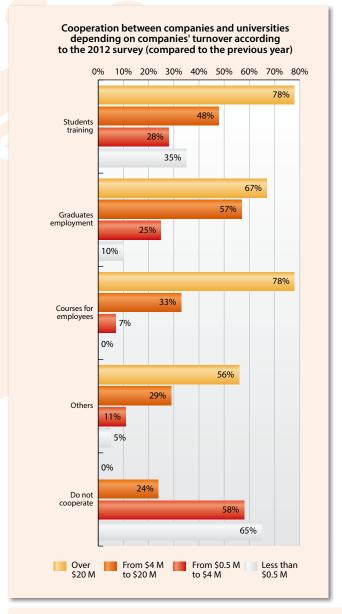
Companies in Moscow and St. Petersburg have the smallest share of fresh university graduates in there staff (1.7%). Most likely it may be explained by the fact that they have more opportunities to engage the most skilled developers from regions and from abroad (particularly hiring them for the their distributed development centers over the Globe).

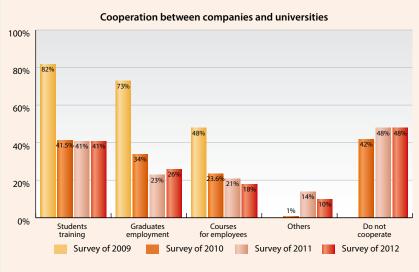
The survey did not show any obvious increase in the number of companies cooperating with universities. This increase is hardly possible as even large foreign companies need to admit existence of problems not only in establishing cooperation, but also just in coming into contact with higher education institutions in big cities. All leading universities no longer open their doors to any large company as they do not graduate enough students for all comers.

According to the Career.ru poll (the portal belongs to the HeadHunter company), 30% of the companies cooperating with higher education institutions or colleges experience difficulties as educational institutions come into contact reluctantly. 49% of the companies admit that the process is very difficult to be organized, and 38% of companies can not easily find students neither instructors to train inexperienced graduates.

At present and in the coming years the evaluation of quality of engineers is and will be under the pressure of the so-called "demographic hole" (sharp reduction of schools graduates number due to a very low natality-rate in the period of "perestroika" in the 1990-ies). This phenomena results in a low competition in universities and in technical colleges where number of applicants is being reduced year by year. Entrance to universities became easier and the threat of expel after having received bad notes at examinations decreased. Therefore, both higher education

institutions and young people have fewer incentives for working hard to increase their knowledge level. By 2010 the fall of the level of both — graduates and students became obvious almost for all employers who recruited them.





Certainly, it concerns only the average level of training and in many educational institutions the quality of training might have been improved during the recent years.

At the same time, there are some positive changes. For example, the public funding of the leading technical universities has improved. In particular they began to receive grants which allow them to invite well-known professors from abroad. Furthermore, judging by achievements of the Russian students and graduates, significant deterioration in comparison to foreign universities has not been observed any more. This can be partly explained by the fact that the level of IT engineers training is gradually decreasing in most countries.

The Russian technical institutes are presented in the international ratings of universities extremely poorly (or are placed far outside the first hundred of the ratings). The main reason is that they did not learn yet how to work with rating agencies which have not enough information on the higher education in Russia. Therefore it is difficult to compare Russian and foreign universities by common key criteria.

Nevertheless higher education institutions in Russia take the highest positions in some specific ratings. For example, the St. Petersburg National Research University of Information Technologies, Mechanics and Optics (SPb NIU ITMO) is the best in the world by results of performance in the world championship in programming among students (ACM International Collegiate Programming Contest) in the last decade. Some other Russian universities are in the top twenty in the rating created by the organizers of this competition.

Russian universities performed very successfully again in the final of the International Collegiate Programming Contest among students in the Spring of 2012 in Poland. The absolute first place took the SPb NIU ITMO team. This university had won the programming world championship 4 times already which is a record for this competition. Among the medal winners (the top 12) in 2012 there were teams of

the Moscow Physics and Technology Institute (the absolute 3rd place) and the Moscow State University (the 10th place). The Moscow Physics and Technology Institute students became the prize winners of this prestigious competition for the first time.

Five more Russian universities' teams showed quite successful results. The Saratov State University took the 13th place. The Nizhny Novgorod State University, St. Petersburg State University and the Ural Federal University shared the 18th place with several more foreign universities. The Tomsk State University took the 36th place. It should be noted that among the 12 prize winners there were two

Achievements of Russian universities' teams at the ACM International Collegiate Programming Contest from 1999 to 2012*

	Место на чемпионате мира по программированию в разные годы				
Название вуза	Years 1999–2008	2009	2010	2011	2012
St. Petersburg National Research University of Information Technologies, Mechanics and Optics	3, 5, 3, 3, 1, 3, 3, 1	1			1
St. Petersburg State University	9, 1, 1, 6, 11	3	9	4	
Moscow State University	9, 2, 2, 9, 10, 5		2	10	10
Saratov State University	6, 7, 1, 6	4	7	6	
Izhevsk State University	8, 9, 3				
Altai State Technical University	3	8			
Moscow Institute of Physics and Technology					3
Perm State University	4				
Petrozavodsk State University	13,1		5		
Novosibirsk State University	5				
Nizhny Novgorod State University				5	
Ufa State Aviation Technical University	10				
Ural State University			13	11	
Total number of prizewinners	from 2 to 5 (in 2006–2008)	4	5	5	3

^{* —} The quantity of medal places varied from 10 to 13 during this period Source: ACM International Collegiate Programming Contest, rating is created by the RUSSOFT Association.

Ranking of universities the graduates whereof are in great demand among the IT companies

Place	Name	Reference rate in 2012 (in 2011)
1	St. Petersburg State University	22 (20)
2	St. Petersburg National Research University of Information Technologies, Mechanics and Optics	20 (26)
3	Bauman Moscow State Technical University	17 (28)
4	Moscow Institute of Physics and Technology	15 (18)
5–6	Moscow State University	10 (23)
5–6	St. Petersburg State Polytechnic University	10 (21)
7	St. Petersburg State Electrotechnical University	9 (19)
8	Moscow Engineering Physics Institute	6 (8)
9	St. Petersburg State Institute of Technology (Technical University)	5 (—)
10	Novosibirsk State Technical University	4 (—)
11–14	Samara State Space University	3 (—)
11–14	Baltic State Technical University	3 (5)
11–14	Southern Federal University	3 (3)
11–14	Yaroslavl State University	3 (—)
15–24	St. Petersburg State University of Telecommunications named after prof. Bonch-Bruevich	2 (3)
15–24	Don State Technical University	2 (—)
15–24	St. Petersburg State University of Space Instrumentation	2 (6)
15–24	Moscow Aviation Institute	2 (6)
15–24	Moscow State University of Economy, Statistics and Informatics	2 (—)
15–24	Novosibirsk State University	2 (7)
15–24	Nizhny Novgorod State University	2 (—)
15–24	Omsk State University	2 (—)
15–24	Chelyabinsk State University	2 (—)
15–24	South Ural State University	2 (2)
ource: RUSSOFT	Association	

universities of Belarus which is very close to Russia in the sense of economics and culture. The only prize for

the USA came from the Harward University.

For the last 13 years of participation in ACM competitions a fantastic galaxy of Universities' teams from Russia was created who entered the world elite. Since 1999 the prize-winning places on these

competitions were taken by 13 Russian universities, and three of them became absolute champions in different years. It is much more victories than in any other country. In total Russia won a champion title for 7 times at these competitions for the last 13 years.

Russian students also show very good results at other competitions in the field of computer



The best higher education institutions by the number of submitted applications for the Web Ready web projects competition in 2011

Place	Name	Share from all applications
1	St. Petersburg State University	7.25%
2	St. Petersburg National Research University of Information Technologies, Mechanics and Optics	5.1%
3	Moscow State University	4.4%
4	St. Petersburg State Polytechnic University	3.62%
5	St. Petersburg State Electrotechnical University	3.14%
6	Moscow Institute of Physics and Technology	2.9%
7	Bauman Moscow State Technical University	2.17%
8	Novosibirsk State Technical University	2.17%
9	Perm State National Research University	1.69%
10	Perm State Technical University	1.69%
Source: Web Read		

technologies. For example, the SPb NIU ITMO students won the gold, silver and bronze in various categories at the world championship of humanoid robots which took place in China in July 2012. The second year in a row Russian students won in the Facebook Hacker competition (this time the first place was taken by Roman Andreev from the St. Petersburg State University). Sergey Glazunov, a student of the Tyumen State University became the first one who found vulnerabilities in the Chrome browser within the Google Pwnium competition and got the first prize for it — \$60,000. Last year he earned \$50,000 from participating in the similar competition.

Not always champions and prize-winners on sports programming reach the outstanding results in commercial companies and state organizations. However as a rule they can resolve the most complex and challenging problems in their labor activities as evidenced by the fact that many Russian champions and prize-winners of the ACM championship created successful software companies or became main experts (f.ex. in DevExperts, SPb Software, Yota, Vkontakte).

It is quite possible to determine the leading Russian higher education institutions in the field of IT training by a number of internal ratings, which are created with use of various methodologies. Each rating has certain disadvantages, but taken together and considering the features of ranging they allow to get a quite objective picture. Within their own research the RUSSOFT Association issued two ratings: one based on the performance of the universities in the World Cup in programming (ACM) and the other one based on the reference rate of the best higher education institutions by the survey respondents.

Since the position in the second rating depends largely on the number of the companies representing a specific city, the first places were occupied by the universities from Moscow and St. Petersburg. In this regard it is more appropriate to compare universities located in one city. However, sufficient sample for this comparison presents only in Moscow and St. Petersburg.

Nevertheless, even taking aforesaid note into account, universities ranking reflects the level of

programmers' training especially when taking into consideration the range which contains this particular university (for example from 1st to 5th place or from 6th to 10th place.) It is remarkable that the structure of the top 10 almost did not change for the last 2–3 years.

In total, the respondent companies mentioned about 100 universities and institutes (last year only 70 were mentioned) the graduates whereof are in the greatest demand among the IT companies of their regions.

Within the last two years, some Russian ratings of universities in the IT industry were published. According to the research of the CNews on-line edition, the largest number of founders and top managers of largest Russian IT companies and of offices of foreign firms have been graduated from Moscow Institute of Physics and Technology (5 persons) and Moscow State University (3 persons).

Organizers of the Web Ready (the All-Russian web projects competition that took place at the end of 2011) ranged universities by the number of applications received from them. As this competition is held in St. Petersburg, the higher education institutions of this city gained certain advantages. However, it is impossible to say that they (as well as other universities) got to the top-10 just by chance.

The research center of the Superjob.ru recruiting portal created the rating of universities that is based on the evaluation of how successful their graduates are in getting job in Moscow (first of all, the salary level was estimated). It is natural that in this case the Moscow universities have an advantage.

SITUATION ON THE LABOR MARKET IN RUSSIA AND IN OTHER COUNTRIES

Problems with staff training, existing in Russia, are common for the majority of the countries developing own software industry. The shortage of developers is a global issue. In the majority of world countries, the labor market supply goes behind the growing demand for software developers. Now Russia endures



Place	Name	The average salary of the graduates having a position according to the acquired / adjacent specialty, thousand RUR
1–4	Moscow State University	85
1–4	Moscow Engineering Physics Institute	85
1–4	Moscow Institute of Physics and Technology	85
1–4	Novosibirsk State University	85
5	Bauman Moscow State Technical University	80
6–10	Moscow State Institute of Electronics and Mathematics	75
6–10	Novosibirsk State Technical University	75
6–10	Nizhny Novgorod State University	75
6–10	St. Petersburg State University	75
6–10	Ural Federal University	75
11–12	Saratov State Technical University	73
11–12	Ufa State Aviation Technical University	73
13–16	Kazan (Volga) Federal University	70
13–16	Moscow Aviation Institute	70
13–16	Moscow Institute of Electronic Equipment	70
13–16	Nizhny Novgorod State Technical University	70
17–19	Moscow Power Engineering Institute	68
17–19	Orenburg State University	68
17–19	Penza State University	68
20–22	Volgograd State Technical University	67
20–22	St. Petersburg State Polytechnical University	67
20–22	Tula State University	67
23	Izhevsk State Technical University	66
24–26	Vladimir State University	65
24–26	Moscow State Institute of Radio Engineering, Electronics and Automatics	65
24–26	Ryazan State Radio Engineering University	65
27–28	Kazan State Technical University	62
27–28	St. Petersburg State Electrotechnical University	62
29–33	Voronezh State Technical University	60
29–33	Moscow State University of Instrument Making and Informatics	60
29–33	Moscow State University of Means of Communication	60
29–33	St. Petersburg State University of Space Instrumentation	60
29-33	St. Petersburg National Research University of Information Technologies, Mechanics and Optics	60

a "demographic hole" that is caused by a great reduction of the birth rate about 20 years ago. In economically developed countries the process of the young people share reduction is also observed, but this process is stretched in time. Due to the existing disproportions almost everywhere in the Globe the developers' salaries are growing.

The shortage of staff is observed even in densely populated India, though it is not connected with a birth rate decrease. There is no general secondary education in this country, so only a small part of Indian children gets the high-quality school education.

China and some other countries of the South East Asia achieve a good pace in training of enginers in software development. However building of an educational system is a long process. Therefore the global shortage of engineers cannot be covered by the increasing offer in this region. Especially taking into account the quick growth of the internal demand for qualified personnel in the countries of the South East Asia.

This is a global problem that is common for almost all developed and developing countries: many young people do not want to study mathematics to become programmers. The similar phenomenon is observed both in Russia and in the USA, Mexico, Germany and in many other countries.

In economically developed countries also exists another problem: some graduates of universities are not ready for independent work. Even in the USA employers complain that they have to additionally train recent students in order to make them full-fledged employees.

Jobless software developers are still available in some countries and mass reductions carried out in the software industry does not fit well into the overall picture. For example, in the spring of 2012 Tieto Enator (the Finnish/Swedish largest IT-company) declared its plans to dismiss 7% of the regular employees (about 1300 people) working in Sweden and Finland. However the reason for this reduction is the high level of salaries in these

countries. Those salaries are much higher than the world average level. It becomes more favorable for Finnish and Swedish companies to place orders for software development into other countries than to keep own programmers' staff. In some countries the unemployment is caused by the above reason and by the lack of software companies with a good reputation who might have absorbed the unemployed engineers.

The level of software developers' salary in Russia is already comparable with that in the most economically developed countries. While in the USA the average income of programmer is still higher than in Russia (for example, in the Silicon valley a Java-programmer earns \$8–9 thousand a month and in Moscow and St. Petersburg — only about \$2–3 thousand), in a number of the West European countries it is already more favorable for Russian companies to recruit local developers than to hire engineers in the own country. Some companies are already considering the feasibility to open their own <mark>d</mark>evelopment cen<mark>ters in Gre</mark>ece, Italy and Spain – countries with the high unemployment rate. Quite recently, Russians were coming to these countries for higher salaries. It is quite possible, that Greeks, Italian and Spanish developers start moving to Russia searching for a good job.

Despite the global deficiency of software developers, many skilled programmers are unemployed in the South European countries experiencing the crisis. At these countries the custom software development is not developed yet and software companies are not authoritative for customers from wealthy countries. For example Germans would rather cooperate with Russian software developers than with Greek ones.

Judging by the average income of Javaprogrammers salaries of the Russian developers are approximately the same as in the Hispanic countries (Spain, Mexico, Colombia, Argentina, and Peru). Apparently salaries of Spanish programmers are a little bit higher than the ones in Russia but in Colombia salaries are lower than in Russia.

According to the Russian software development companies which opened dedicated development centers in other countries, the cost of labor in Vietnam and China is at least two times less than in Russia. Other costs on business organization are also lower there. The total expenses on software development in India are still much lower than in Russia.

Now only the USA (that generally solve personnel deficit problem by attracting migrants) takes active attempts to hire Russian programmers. Germany, France, Australia and Ireland had also launched promotion programs for foreign engineers' recruitment in previous years. Once again, American companies became more active in searching of employees in Russia at the end of 2011. However the same out-flow of developers as it used to be 10–15 years ago should not be expected.

Still the number of people desiring to work abroad is rather high. About 45% of the trainees from the Korus Consulting company responded that would have probably agreed to move to another country if they had received good job offers. According to the HeadHunter recruiting company, 65% of the IT experts are thinking about leaving abroad (a quarter of them take steps to realize this plan.) However unlike the situation in the beginning of 2000s the main reason for searching a job in other countries now is not to earn more money but to get new knowledge and skills. The practice shows that after some years of work abroad about a half of programmers come back to Russia with new experience and skills acquired in foreign companies. At the same time only small share of engineers desiring to work abroad make decision to leave Russia or receive good offers.

The "brain drain" is not a serious problem for the Russian software industry any more. Some engineers leave Russia while others, on the contrary, move here from other countries. Both opposite streams are equivalent in their scales. In the recent years the largest Russian software companies demonstrated the ability to compete on equal level for top-managers with the leading companies of the world. They often invite foreign managers who already have significant achievements and are well known abroad.

Russia manages to be competitive in the world software market at the previous level because the existing staff deficit problems in Russian companies are common for the majority of other countries. However Russians should not calm down just because the situation in other countries is poor. It should be noted that if Russia does not take adequate measures to enhance its educational system, some countries can drive it back even from the current growing position.

Furthermore, the benefit of Russia compared to the USA (and to some other economically developed countries) in the cost of labor is partly compensated by higher costs of overcoming administrative barriers, of the office rent, of administration of accounting and financial reporting and on heavy taxes for the high-technology companies and their employees. There are huge disproportions in the structure of education in Russian economy. While there is a deficiency of technical experts, there is a huge number of economists, designers, accountants, lawyers who graduate annually from universities but cannot find work on their profile. Another problem (and also a source of new staff) is related to the imperfection of the Russian regulations. For example, the number of accountants in the country can be easily reduced at least by tens percent if Russia finally adjust its accounting system and transfers it to the international one. Solutions to almost all of these problems can be found, and all these problems have to be solved.

The available potential of Russia allows counting on a significant increase of the country share in the



world software market. According to Frost & Sullivan, Russia is on the first place in the world by the number of researchers and developers per thousand citizens and on the third place by the similar number of scientists and engineers, considerably advancing India and China. Russia is also the first in the world by the

share of students acquiring technical qualifications (according to UNESCO, Federal Statistic Office of Germany). In order to use this potential it is quite necessary to create more favorable conditions for IT business development in Russia.



CHAPTER 6.

TECHNOLOGIES



During the crisis of 2009-2010 the average reference rate for the used technologies and platforms sharply decreased (by 1.5–2 times). It is explained by the fact that along with simultaneous "staff optimization" efforts, companies aspired to cut their expenses on software. That includes licenses for OS, DBMS, and programming tools used by dismissed employees and/or tools that were not used at full capacity before the crisis but were maintained for the purpose of new deployment. Thanks to the economic crisis impact, we managed to obtain additional information about the extent to which OSs, DBMSs and programming tools were used as a reserve and (on the contrary) which technologies should not be refused by companies despite the crisis. This year, the reference rate for technologies and platforms used by respondents considerably increased and reached the pre-crisis level. This is an indirect evidence of the current market growth and the business development (actual or planned).

OPERATING SYSTEMS

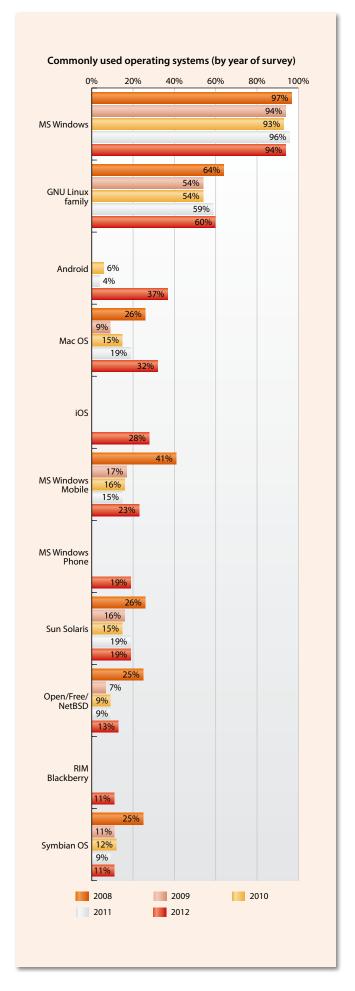
This year, the list of the operating systems which could be chosen by respondents from the questionnaire options, has been extended. As a result, the table of used OSs extended by inclusion of iOS, RIM Blackberry, and MS Windows Phone (all designed for mobile devices). Two years ago, Android was added to the list.

MS Windows and the GNU Linux family steadily occupy the first two positions in our rating for the last 5 years. Thus, the share of the companies that mentioned them changed insignificantly (as a rule, the such fluctuations may be explained by the approximation error). Android promptly moved up from the bottom to the third position. This rise was expected as the IDC and the Gartner experts predicted a rapid growth of this operating system global popularity.

iOS OS moved up to the 5th place (as sharply as Android moved up to the third place). Within one year the share of respondents who mentioned this OS increased from 2% to 28%. A significant increase of the Mac OS figure should also be noted.

Android OS popularity is lower among those companies which are more oriented towards the Russian market than towards the foreign ones. This OS was mentioned by 25% of the representatives of the group of companies with the export share lower than 50% and by 68% of the companies with the export share exceeding 50% of consolidated revenues. At the same time, according to the Svyaznoy company, in Q4 2011 the share of the Android mobile platform first exceeded the Symbian platform share (38% against 37%) in the Russian market (by the number of sold smart phones on which it is installed). Therefore, the demand for the applications that are developed for Russian mobile device users will increase as well.

Generally speaking, more the export share is, more popular other mobile device OSs are. The highest



figures of these systems popularity are noted in St. Petersburg, where development of applications for smart phones and other mobile devices has been explosively growing for a few years.

It is worth noticing that software product developers use operating systems for mobile devices much less often than custom software developers.

Along with the OSs specified in the table, the respondents also mentioned Bada (1%) as well as real time (2%) and built-in (1%) operating systems.

DBMS

The top-three of the DBMSs that are the most popular ones among Russian software exporters remain the same for the last 5 years. Earlier, their rating positions did not change, but this year the free MySQL DBMS displaced the commercial Oracle DBMS from the second position.

After MySQL acquisition, both systems are developed and supported by Oracle. It is worth noticing that among enterprises having the turnover over \$4 million (where 88% of the interrogated

companies' employees are concentrated) Oracle DBMS still keeps ahead of MySQL and holds the second place (it is mentioned by 73% of the companies from this group).

DEVELOPMENT TOOLS

The number of references to all programming languages increased, except for Pascal (Delphi), which is becoming less popular during the last 2 years. At the same time, Pascal (Delphi) is rather often used as a secondary programming language (by more than one fifth of the interrogated companies).

It is remarkable that the reference rate for such popular development tool as MS Visual Studio decreased to the pre-crisis level of 2008.

The results of the survey on used technologies are generally agreed with the positions of programming languages in the Tiobe Programming Community Index global rating, according to which in March 2012 Java was on the first place (used by 17.1% of programmers), C — on the second (17.09%), and C# — on the third (8.24%).

Commonly used DBMSs, % of the interrogated companies

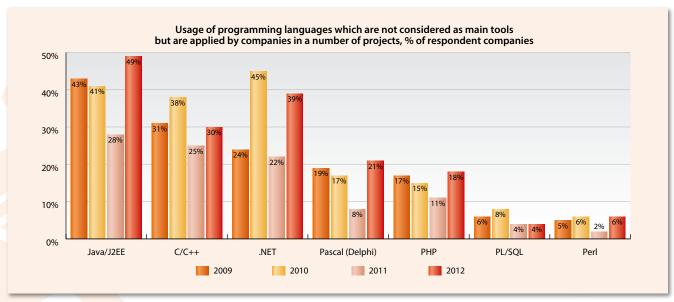
DBMS name	Survey of 2008	Survey of 2009	Survey of 2010	Survey of 2011	Survey of 2012
MS SQL	82%	66.1%	63%	74%	70%
Oracle	69%	48.6%	49%	55%	51%
MySQL	68%	35.8%	47%	40%	59%
MS Access	49%	14.7%	19%	9%	19%
Firebird	19%	11.0%	11%	9%	10%
PostgreSQL	31%	11.0%	17%	15%	26%
MSDE	27%	9.2%	7%	5%	5%
IBM DB2	33%	8.3%	13%	14%	9%
InterBase	18%	7.3%	9%	7%	7%
Sybase ASA	13%	6.4%	6%	6%	5%
SQLite	8%	5.5%	9%	5%	12%
IBM Informix	18%	5.5%	7%	5%	7%
SAP DB	9%	4.6%	6%	5%	7%
Sybase ASE	13%	3.7%	6%	3%	3%
Paradox	12%	1.8%	4%	3%	3%
Other			13%	8%	7%

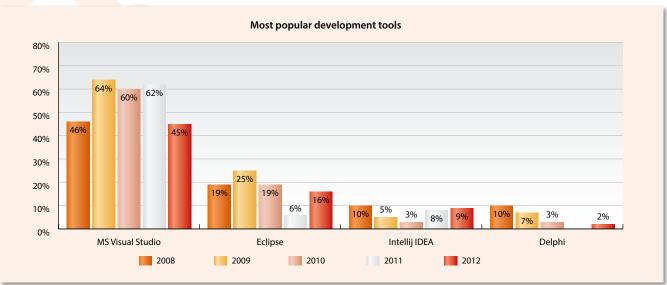
Reference rate of programming languages, specified as main tools in surveys in 2008–2012, percentage of respondent companies

Programming language	2008	2009	2010	2011	2012
C/C++	33%	36%	46%	38%	36%
Java/J2EE	38%	21.1%	22%	20%	30%
Pascal (Delphi)	13%	18.4%	18%	9%	3%
.NET	48%	17.5%	21%	24%	41%
PHP	13%	5.8%	8%	9%	9%
PL/SQL	11%	1.9%	3%	2%	5%
Perl	4%	0%	2%	1%	2%
Other	_	_	_	6%	18%

Among the main languages that are not included in the table, the respondents most often mentioned Asembler (2%), Cobol (2%), Python (4%), and Ruby (3%).







SUMMARY



Following results of the present study, the export revenues of Russian software developers in 2011 increased by 22% and reached \$4 bln. It looks like the growth rate was stabilized at the level of 20–25% a year. It has been within the same limits for the last 4 years (except for the crisis of 2009 when the export grew only 3%) and, according to the forecasts, it would remain the same during the next 2 years.

The software share in the overall Russian export is still small (according to the official data it is about 1%). Nevertheless, the volume of the software and software development services' export is the largest segment of the hi-tech export (along with the export generated by the nuclear power industry) and is quite comparable with the Russia's income from the sales of military equipment abroad, which reached \$13.2 billion last year.

The growth of software products and ready-to-use solutions' export slowed down in 2011 (from 30% in 2010 to 20%) mainly because of stabilization of the the world market share of the largest Russian software exporter (Kaspersky Lab). Nevertheless, the increase of the software development services' export growth rate has compensated the reduction of the software export growth. According to experts, producers of packaged software will have higher export growth rate than service companies and Russian IT export growth will stabilize at the level of 20%–25% in the next years.

The international software development centers already operating in Russia staffed up not very actively in 2011. At the same time, several large corporations started realizing plans on creation of their R&D divisions in Russia which had been declared during the last three years. In total, the growth of the software development and R&D services' export generated by foreign captive centers in Russia is about 10% a year, which is higher than the IT world market growth rate.

The consolidation of the export IT industry continued in 2011. Large companies provided the main share of the Russian software and software development service export growth.

The structure of the respondents' pool has also changed. The average number of employees per company was 229 people which is by 37% more than the last year.

It is difficult for small software development companies to increase sales in Russia, and it is even more difficult to do this abroad. Their growth rates are much lower than those of medium and large companies. Nevertheless, experts pin the main hopes for further strengthening of the Russian software export in the medium-term perspective on the small software companies.

The share of companies that have existed in the market less than three years grew considerably. In the last 2–3 years the number of startups in Russia increased significantly. It can be stated that there is a boom of startups. According to the venture capitalists' assessment, the number of the new

companies at least doubled in comparison to the pre-crisis period. This growth is being reflected in the survey results with a certain lag: the share of the respondent companies created no more than 3 years ago increased from 2–3% in the previous 2 years to 10% in 2012.

Russia's accession to the World Trade Organization will probably somehow affect the Russian IT exporter companies' operations. The competition would increase because of the new foreign software inflow in the domestic market; however it will be easier to promote services and solutions abroad. Changes in the Global IT-market (changes of its structure and the transition to more economically effective solutions) favorably affect perspectives for the Russian software export.

A noticeable entry of Russian companies and investors into the foreign markets had begun in 2010 and continued in 2011. It is not a massive yet, but it witnesses already a rather net trend in the industry. Russians are coming ...

The markets of the USA and Western Europe are still the most perspective for Russian companies. The importance of the North American market (the USA and Canada) for Russian developers considerably increased in 2011, after its steady decrease in the last 4 years. Apparently, the American IT-market became attractive again for some companies (both large and rather small) that can be explained by a certain economic recovery there and by problems in Europe. Still Europe has also attracted higher attention of Russian software companies which may mean a general growth of the industry and of its aspirations to developed markets.

Producers of packaged software have much greater representation in such exotic for Russia markets as Australia, Africa, South America and South East Asia. The share of packaged software vendors that operate in these markets is 2–3 times higher than the share of custom software developers.

Russia enhanced its positions in the ratings of service companies published by the Global Services and by IAOP (International Association of Outsourcing Professionals). These two ratings mainly consider the quality of provided services rather than the company size. Russia is represented in these ratings by a greater number of companies that any other country except India and the USA.

The Russian IT market rapid growth, which renewed in 2010, led to significant achievements. First, its volume has exceeded the pre-crisis level of 2008. Second, Russia has taken the first place by the number of Internet users in Europe and by the number of imported PCs in the EMEA region (IDC). In addition, analysts fist talk of oncoming saturation in the Russian computer market that testifies to the achievement of the level of the economically developed countries.

Over the last year, the Russia's positions in various ratings reflecting the level of development and usage



of information technologies as well as conditions for conducting business changed both for the worse and for the better. More often it changed for the better. Russia's progress is especially noticeable in the world rating of the Electronic government development (E-Government Survey 2012: E-Government for the People) where just in a year Russia raised up for 32 positions, from the 59th to the 27th place.

In 2010–2011, the style of publications in foreign mass media (which can influence the image of Russia as a country capable to create high technologies) changed drastically. For the first time the share of news, reports and reviews giving to varying degree positive information about the country exceeded 50% and reached 66%. The last monitoring of the articles published from May 2011 to June 2012 showed that the occurred changes were irreversible (in the short-term perspective at least). With a small decrease in the share of publications positively influencing the image, the total number of articles that mention Russia has increased considerably.

The priorities of the respondent companies' development and the main objectives for the current year have not changed. The distinctions between the companies' priorities depending on their size, the export share and the location remained the same.

Nevertheless, several indicators determining the companies' development plans have changed. Judging by an increase in the rate of respondents' reference for all vertical markets, software companies expanded the range of their customers in 2011. It is also reflected by the fact that the reference rate for different technologies and platforms used by Russian software business has considerably increased and reached the pre-crisis level this year. In comparison to the previous years, much more companies plan to open new sales offices and R&D centers in the next two years.

The share of companies that attracted investments has not changed practically during the last 3 years. In 2011, like a year before, it was 9%. However, the share of companies that plan to attract investments in the next two years has sharply increased. In general, the investments into the IT sphere grew considerably within the last few years (mainly in startups). The annual growth is several tens of percents (up to 100%). According to the first review on the Russian venture market which was prepared by the PwC Center of Technologies and Innovations and the Russian Venture Company (RVC), the total amount of venture investments into the Russian IT sector in 2011 was \$237 million as result of 139 deals. A significant event in attracting investments into the software development business became the EPAM Systems' successful IPO at the New York Stock Exchange.

For the last year, the state (represented by the Government of the Russian Federation and the local governing bodies) have taken a number of measures that were positively perceived by the IT-business. This led to a rise in their estimates of business conditions

in Russia. Large companies' estimates improved considerably (they estimate conditions as almost satisfactory with the average grade of 2.92 points). The progress is obvious, and it should be noted. However, the Good grade from all respondents (including the small ones) is the goal for the next years.

Improvement is recorded in all directions with only one exception. The estimation of staff supply and of the educational system became worse, that is connected with the Russian demographic pit of 1990-es and a rapid growth of almost all large service companies which is accompanied by the staff increase.

In comparison to the previous survey data, the share of companies dissatisfied with the qualified personnel supply in the labor market increased considerably (from 30% to 44.5%). The intensifying personnel problem has an even stronger impact on small companies which can not compete with larger enterprises in the Russian labor market. Neither small companies can create their foreign development centers due to the lack of resources.

The discontent with the tax system which reached the record share of the respondent companies last year, slightly decreased. Thus, almost all largest companies (with the turnover over \$20 million) are satisfied with the existing taxes and incentives on social payment. 37% of all respondents use the privilege on social payment according to the Federal Law No. 212. Larger company is — more often it uses the privilege.

Despite the growth of the average office lease in 2011 the share of companies dissatisfied with the existing infrastructure in Russia reduced considerably. Comparing the estimates of the existing infrastructure for the last 5 years, it can be concluded that the respondents admit a certain progress. Moscow and St. Petersburg estimations of the infrastructure were generally positive (only 3% of all the companies gave the unsatisfactory estimates).

State investments into creation of science and technology parks, special economic zones, science cities and of Skolkovo innovation center did not lead to considerable changes of the respondents' assessment of business conditions

Nevertheless, keeping in mind state investments into creation of office infrastructure, respondents note almost total absence of the regular state support of international marketing activities which is mainly needed for small and medium-sized companies.

In the recent years, the Russian custom software developers lost the low labor cost advantage. Nevertheless, their successes in the international ratings and the growth of their turnover are the proofs that the man-hour cost is not any more the most important criteria when choosing a contractor for the project. Customers pay more and more attention to developers' skills (technical, communication, and cultural) which would allow them to reach their business goal.

In 2011, Russian companies' recruitment was more active than the year before. In particular, the share of respondents that did not hire any engineer for the year was considerably reduced (from 28% to 15%) and there was an increase in the average number of engineering specializations by which most employees were recruited (from 1.16 to 1.73). An increase in the staff turnover rate from 4.5% to 6% means a competition growth in the labor market. Still it is very far from that in leading outsourcing destinations.

The lack of software development engineers became obvious more than a year ago. It is confirmed by both the survey results and the research conducted by the recruiting agencies. Due to the escalating situation in the labor market the vast majority of companies are forced to hire inexperienced

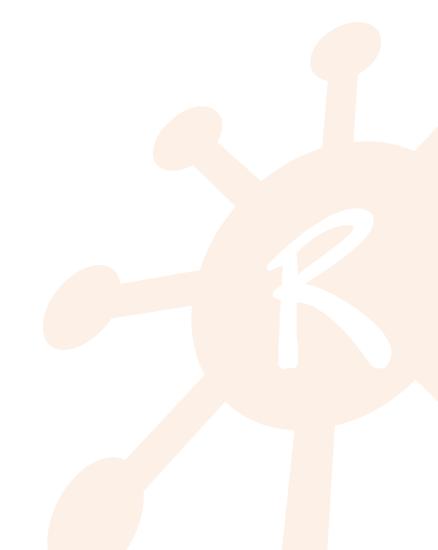
engineers. Only 28% of the interrogated companies did not hire any university graduates in 2011. To add that this figure for the companies having turnover over \$4 million is even lower (7.7% while the year before it was 20.6%).

The survey showed that big and medium sized business in both capitals has no problem with English speaking personnel. Small companies and regional companies experience a lack of English-speaking employees. In the regional companies, only 35–40% of the profile employees have good English.

During this year, the salaries of experienced developers and managers in the respondent companies increased by 19% and 18% respectively, and the salaries of beginner developers increased by 14%.



PARTICIPANTS OF THE SURVEY





ARTEZIO Artezio — the Art of Technology

Founded	2000		
Headquartered	Moscow, Russian Federation		
Company Overview	Artezio is an ISO 9001:2008 certified software development and consulting company. Over the last twelve years, Artezio has completed more than 500 projects for its international clients. Artezio's software development services allow its clients to deploy multi-platform applications, thus letting them leverage the power of modern software technologies. This is done with the highest degree of engineering skills in conjunction with clear and transparent communication processes. As a business consulting service provider, Artezio offers technology companies help and expertise in setting up and managing their own offshore/ nearshore software development centers. Since 2005, Artezio is a member and a major offshore division of LANIT group which is a \$2B IT Services vendor with 5000 employees. From its development centers Artezio delivers cost effective, high quality IT services to clients in North America, Europe, Middle East and Japan thus being one of the leading Russian offshore software developers.		
Development Centers	Moscow, Saratov, Nizhny Novgorod (Russia); Minsk, Vitebsk, Mogilev (Belarus); Kharkov (Ukraine)		
Certification	ISO 9001:2008, Microsoft Gold Certified		
Industry Awards	IAOP Global Outsourcing 100 2006, 2010–1012; Global Services 100 2011–2012, Software 500 2010–2012, the Black Book of Outsourcing 2005		
Services	 Custom software development System integration Technology consulting Software quality assurance and control Support and maintenance Business Analysis and Consulting Offshore development center setup and operate IT outstaffing 		
Industry Focus	Core: Healthcare/Pharmaceuticals/Bio-tech/Life Sciences, Finance/Banking, Telecommunications, Hi-tech. Emerging: Transportation/Logistics, Retail, Entertainment/Media, Education, Governmental, Gas and Oil.		
Corporate Solutions	Custom software: Mobile, Web and desktop applications; Multi-tier distributed solutions; SaaS, laaS, PaaS; e-learning; CRM. Portal&Collaboration: JBoss; Liferay; Oracle; IBM; Microsoft SharePoint; NewsGator; Drupal. Integration platforms: IBM WebSphere ESB; Oracle Fusion Middleware; JBoss ESB; Apache ServiceMix; Spring Integration; BizTalk. BI: Oracle BI; Microsoft BI; Pentaho BI; JasperSoft. Document workflow: Microsoft SharePoint; IBM FileNet; Alfresco; Landocs. Business solutions: Microsoft Dynamics CRM; Microsoft Dynamics NAV. Mobile platforms: iOS, Windows Mobile/Phone, Android.		
Technological Profile	Operating systems: Microsoft Windows; Linux; FreeBSD; IBM AIX; Sun Solaris; HP-UX. Development platforms: Java, J2EE; Microsoft.NET; Windows API; Cocoa; L.A.M.P. Programming languages: Java; C/C++; Objective C; C#, VB.Net; PHP/Perl/Python; Scala. Application servers: IBM WebSphere; Oracle AS, WebLogic Server; JBoss AS; Apache Tomcat; Microsoft IIS. Databases: Oracle; Microsoft SQL Server; IBM DB2, Informix; MySQL; PostgreSQL. Methodology: WF, RAD, RUP, Agile (SCRUM).		
Corporate Websites	http://www.artezio.com, http://www.artezio.ru, http://cloud.artezio.com		
Contacts	info@artezio.com, sales@artezio.com Phone: +7 495 981 0531, Fax: +7 495 232 2683		



Auriga Elite Software R&D Services Since 1990

Founded in	1990	
Engineering Locations	4 development centers in Russia (2 in Moscow, N. Novgorod, Rostov-on-Don) + EU (Vilnius, Lithuania)	
Services	 Software Product Engineering and ADM Custom Software Development Product Maintenance Re-engineering and Porting Customization and Integration Software Testing and QA Product Support Technology Research and Consulting. 	
Domain Verticals	High-tech, Telecom, Mobile, Healthcare, Finance, Information security, Media and Entertainment, Education, Government, and more.	
Major Clients	IBM, Draeger Medical, Datascope, Chrysler, Barclays, Sberbank Russia, Yandex, LynuxWorks, Pigeon Point Systems, etc.	
Technologies & Platforms	 Embedded devices (ARM, PowerPC, Intel, FPGA) Real-time systems (VxWorks, QNX, ThreadX, pSOS, eCos, LynxOS) Linux (server, desktop and embedded), UNIX, Windows internals. Mobile (Android, iOS, Symbian, RIM BlackBerry, MeeGo, Windows Phone) and Wireless (GSM, 3G, GLONASS, Bluetooth, WiFi, WiMax) Enterprise applications: Workflow, document and content management (EMC Documentum and other), CRM systems. Web services, high loaded distributed applications .Net and Java platforms for portals (SharePoint, Liferay, IBM WebSphere), web and desktops application development Databases (MS SQL, Oracle, DB2, Sybase, MySQL) 	
Awards	 In Global Outsourcing 100 (rating by IAOP) since 2008. In 2012 listed among best in healthcare, high-tech industries, R&D services, Russia region. In Global Services 100 (by Global Services Media and neoIT) since 2006. The company is ranked among the "Top 10 Service Providers: Eastern Europe". In The Black Book of Outsourcing (by Datamonitor) c 2006. In 2011 Auriga is ranked the No. 1 Engineering Services Outsourcing (ESO) provider worldwide. In 2010 Auriga was named #15 in the prestigious "Global Top 50 Vendors" list. In previous years the company is named No. 3 in the list of IT Outsourcing Vendors in Central/Eastern Europe and No. 6 in the list of Global Software QA & Testing. Auriga is included in overall Top 20 of software R&D service providers and in Top 10 among the companies serving Software industry, in a 2009 ranking of service providers in India, China, Russia, Ukraine & CEE by Zinnov Management Consulting, a leading management consulting firm 	
Industry Standards	CMMI Level 4, ISO 9001, SPICE, DO-178B, ISO 13485	
About Auriga	Auriga (www.auriga.com), a software R&D services provider, enjoys one of the highest customer-satisfaction ratings worldwide (top 20 across outsourcing industries and #1 in engineering services). The list of services provided covers all aspects of software product engineering and a broad range of knowledge areas from embedded and mobile software to enterprise and Web apps. Due to the appropriate size of the company for software R&D tasks, its client list consists of both established industry leaders and fast-growing start-ups, including IBM, Draeger Medical, Datascope, Chrysler, Barclays, Sberbank Russia, Yandex, LynuxWorks, Pigeon Point Systems, and many others. Founded in 1990, Auriga was the first Russian company to provide software R&D offshore/nearshore services to EU/US customers. In its work, Auriga focuses on soft factors — communications, flexibility, mindset, and culture — in addition to technology expertise. The company has been consistently included in the Global Services 100, Global Outsourcing 100, and other global industry ratings. In 2011, Auriga was named #1 Engineering Services Outsourcing (ESO) provider worldwide by Datamonitor, ahead of such names as Wipro, Siemens, Capgemini, IBM, and others.	
Contacts	Auriga, USA: 92 Potter Rd, Ste. 1, Wilton, NH 03086, USA. Phone: +1 (866) 645-1119, Fax: +1 (603) 386-6097 Auriga, Russia: 125 Varshavskoe Shosse, Unit 16A, Moscow, Russia, 117587 Phone: +7 (495) 713-9900, Fax: +7 (495) 939-0300	
Web Site	http://www.auriga.com	
E-mail	info@auriga.com	





Corporate Website	www.epam.com		
Contact Email	ask@epam.com		
Global Headquarters	Newtown, PA, USA		
Founded	1993		
Headcount	7,750+		
Company Overview	EPAM Systems, Inc. (NYSE:EPAM) is a leading global software engineering and IT consulting provider with software development centers throughout Central and Eastern Europe. Headquartered in the United States, EPAM employs over 7,750 IT professionals and provides services to clients worldwide using a global delivery model through its client facing and delivery operations in the United States, Belarus, Hungary, Russia, Ukraine, UK, Germany, Kazakhstan, Sweden, Switzerland, Poland, and Canada. EPAM's core competencies include complex software product engineering for leading global software and technology vendors, as well as development, testing, maintenance, and support of mission critical business applications and vertically oriented IT consulting services for Forbes Global 2000 corporations. The company has always focused on providing distributed application development services across multiple sites. As such, our entire core processes and systems (quality systems, management processes, software development tools, build management, etc.) have been designed, implemented, and proven over the last 18 years to support this delivery model. Certified as compliant with ISAE 3000 Type 2 and CMMI Level 4 standards, EPAM's experience is backed by financial strength, security & IPR protection, maximizing quality, efficiency and scalability of the company operations while minimizing risks.		
Development Centers	Russia, Ukraine, Belarus, Poland, Hungary, Kazakhstan		
Major Service Offering	 Software product engineering and custom development Project-based technology consulting Application Testing, Maintenance and Support Application Migration and Reengineering 		
Technology Focus	 SAP NetWeaver (xApps, Web Dynpro, EP, BW, BI, XI, MDM) Business Intelligence (IBM, Microsoft, Oracle) E-Commerce (ATG) Content Management (Adobe CQ, EMC Documentum, OpenText, Microsoft SharePoint) Mobile (iOS, Android, Blackberry, Windows Mobile) Cloud (VMware, HP, Microsoft, Amazon) NET (ASP.NET, Win Forms, WPF, Silverlight) Java EE (SOA, ESB, Web & Rich Client Applications, Grid) DBMS (Oracle, MS SQL Server, Sybase, MySQL) Embedded SW development (OSE, VxWorks, LynxOS, Reliant (pSOS), QNX, Linux, HP-UX, Solaris, Windows NT 4.0 Embedded) 		
Practice Areas	 ISVs and Technologies Banking & Financial Services Business Information & Media Travel & Consumer Emerging Verticals 		
Partial Customer List	Adidas, The Coca-Cola Company, Viacom/MTV Networks, Expedia, Schlumberger, Renaissance Capital, MICEX, SAP, Microsoft, Oracle, UBS AG		
Awards	The 2012 Global Services 100 — Marking the seventh consecutive appearance on the GS100 list, EPAM has reaffirmed its CEE leadership status in the software engineering services space. The company is also featured as an IT Services Leader in the following GS100 categories: "Global Product Development", "Top Mid-market Enterprise Applications Deployment", "Mid-Tier Leaders — Testing Services", "Top Mid-Tier ADM Companies". The 2012 Global Outsourcing 100 — EPAM has been ranked #37 on The 2012 Global Outsourcing 100° list. Honored in a variety of sub-lists featuring leaders in specific vertical and geographical categories by the International Association of Outsourcing Professionals (IAOP).		





Overview	First Line Software is a premiere provider of custom software development and technology enablement services to industry leaders and growth companies around the world. Our mission is to enable our customers to capture vital market opportunities, by delivering high quality software through unrivaled technical competence, advanced development methodologies and proven governance approach. First Line focuses on serving the most demanding clients whose primary focus in outsourcing is quality, reliability and continuity. We maximize business value for clients by coupling our highly effective development processes with a comprehensive services portfolio, helping our customers accommodate new business and open up new markets. First Line's customers benefit from our almost two decades of experience and deep expertise in building, operating and growing highly productive software development teams. We serve a variety of clients from different industries and geographies, from North America and Europe to Southeast Asia. Although we specialize in helping software product vendors, we can work with any firm whose business is enabled by or greatly relies on software.
Services	 Product development: technology research and selection, product design, specification and mock-ups, prototyping, full cycle development, component design and integration, performance engineering, customization and enhancement, porting and migration, deployment, support and maintenance Custom application development: feasibility and requirements analysis for business case, application design, development, and implementation, systems integration/consolidation, re-engineering, performance tuning and porting services QA and testing: Test process audit, test coverage analysis, test strategy development, test execution, test automation
Areas of Expertise	 WCM/EPiServer Loyalty technologies Database marketing Cloud computing ECM Enterprise portals Business Intelligence
Website	www.firstlinesoftware.com
Contact Info	E-mail: sales@firstlinesoftware.com Phone: +1 (877) 737 7178
Global Presence	USA, Russia





Luxoft

About Luxoft	Founded in 2000, Luxoft is a leading provider of complex software engineering in Central and Eastern Europe. Since Luxoft was spun-off from the IBS Group in 2000, the number of company clients has increased over 30 times, while our staff has grown to 5,600+ employees worldwide. Company revenues of \$271.1 M in FY2012 (achieved primarily through the organic growth) have increased nearly 50 times since 2000 and are still growing steadily. Today Luxoft is a global industry player with 18 offices in 10 countries, recognized by industry leading associations, working on mission-critical IT projects for Fortune Global 500 companies.
Our People	We attract and retain top engineering talent — about 70% of our developers have 7–10+ years of industry experience. Our selective recruitment practices, continuous training, passionate focus on clients' needs and low turnover rates result in one of the best technology talent pools in Europe. Luxoft works closely with world's leading technical education institutions and participates in an array of education assistance programs for students, providing internship programs and grants for outstanding IT students studying in Russia.
Our Clients	Luxoft owes its success to its long-term relationships with multinational telecom, automotive, energy, financial services, and aerospace companies, which have given the company a solid knowledge base and the means to grow vertical industry expertise. Luxoft is proud of the reputation it has built among its clients. Company's major corporate clients include such global leaders as Harman International, Deutsche Bank, Ford, Boeing, IBM, Dell, Citigroup and many others. Luxoft's long-term partnerships with many of these companies span over Company's entire existence resulting in a status of a preferred supplier.
Our Service Offerings	We provide a wide range of software development, product engineering and consulting services. We deliver these services to our clients in the Financial Services, Telecom, Automotive & Transport, Travel & Aviation, Energy and Technology verticals. In addition to building strong vertical business practices within the company, Luxoft invests heavily in developing horizontal know-how in Big Data, Cloud & Virtualization, Mobility, PLM/PDM, Embedded Systems Development and Agile. Company enjoys exceptionally strong R&D capabilities with many proprietary technology solutions stemming from various R&D initiatives.
What Sets Us Apart	Luxoft's mission is to go beyond client's expectations by bringing together technology, talent, innovation and highest quality standards. Every day we execute on this mission by offering our clients the best and the latest in each of these areas. Luxoft is known for its core mission-critical development, deep domain knowledge, global delivery capability, innovative approach to software development, agility, and ability to recruit and retain highly skilled and experienced talent. Our vision is to be the leading Central and Eastern European IT service provider with strong position in our key verticals.
Contact Info	1-Volokolamsky proezd, 123060 Moscow, Russia Phone: +7 (495) 967 80 30 Fax: +7 (495) 967 80 32 E-mail: info@luxoft.com www.luxoft.com





Headquarters	St. Petersburg (Russia)
Development Centers	St. Petersburg, Voronezh
Sales and Project Support Offices	Moscow (Russia), Munich (Germany), Stockholm (Sweden)
Employees	400+
Founded	1991
Company Overview	Reksoft is a leading software engineering services provider in Russia. We specialize in supplying software development services, products and solutions to enterprises, ISVs, and system integrators operating in a variety of industries. Since 2008 Reksoft is part of Technoserv group the largest Russian company dedicated to system integration, IT-services and creation of engineering facilities. Over more than two decades, we have mastered the dynamics of distributed software engineering, developing a workflow and methodology that improves our performance on every key customer metric, including product quality, time to market, budget adherence, project transparency and issue resolution. We possess extensive experience in deploying and running reliable dedicated software development centers with attrition rate below market average, as well as delivering large and mission-critical projects. Currently, the company counts more than 400 employees.
Services	 Software Product Engineering Enterprise application services (development, support, migration & integration, application management) Dedicated development centers
Industry Expertise	In more than 20 years of business, we have accumulated software development experience across a wide range of sectors, including high technology, telecommunications, financial services, media, hospitality and travel and manufacturing.
Quality	Reksoft is the only company in Russia where all delivery units have been officially assessed at highest CMMI Maturity Level 5. Reksoft's quality management system is ISO 9001:2008 certified in the design, development, production, delivery, deployment, integration, maintenance and support of software and computer systems. We enjoy average clients' satisfaction rate of 92% for the last six years and, as a result, a loyal customer base across Europe and USA, with four engagements lasting over 16 years.
Recognition	The 2012 Global Services 100 list, the 2012 top 100 Russian employers list by HeadHunter
Partnership	Reksoft enjoys technology partnerships with recognized leaders in IT. Reksoft holds premier partnership status with Microsoft, Sun Oracle, EMC, IBM, Adobe and other global IT corporations. Using our partners' software platforms and technologies, we are able to provide our customers best-in-class solutions.
Website	www.reksoft.com
E-mail	rfi@reksoft.com



ABISoft Ltd.	
URL	www.abisoft.spb.ru
Contact E-mail	info@abisoft.ru
Contact Phone	+7(812) 591-6903
Headquarters	Saint Petersburg
Year of Foundation	2001
Number of Employees	50
Programming Languages	C, Java
About ABISoft Ltd.	ABISoft Ltd. is a dynamically growing software development company. We have experience in the areas of distributed and autonomous systems for mobile devices, WEB-application development, local or remote support of up systems, database administration, development of computer games, etc. The company develops software products and custom solutions for our clients, and provides technical support for our products.

	ACTS
URL	www.acts.ru
Contact E-mail	acts@acts.ru
Contact Phone	+7(383) 210-6464
Headquarters	Novosibirsk
Year of Foundation	2000
Number of Employees	120
Programming Languages	Java, Pascal
About ACTS	The company Academic City Technology Service (ACTS) was created in the year 2000. The main activities of ACTS are: Support and completion of existing software for Siberia Airlines including programs of production records, accounting, intra-office and special systems; Development, installation and technical maintenance of UniTerm the reservation terminal of booking systems Sirena and Gabriel, that ensures qualitative and reliable booking in various booking systems (Sirena, Gabriel,) and allows one to organize reliable automatic air conveyances sales reporting on-line (the Agent system).

Alditech Ltd.	
URL	www.alditech.ru
Contact E-mail	web@alditech.ru
Contact Phone	+7(496) 773-6220
Headquarters	Puschino
Year of Foundation	2006
Number of Employees	15
Programming Languages	C++, C#, Verilog, VHDL
About Alditech Ltd.	ALDITECH Limited offers its customers a completed cycle of hardware and software development: from technical specifications development prior to real sample of the developed product release. Major activities are: Research and Development; FPGA design and electronic circuit design; Mathematical modeling; Embedded and application software development; Machine vision and image processing; Biotechnology systems development; PCB design.

Alsoft	
URL	www.alsoft.ru
Contact E-mail	alsoft@alsoft.ru
Contact Phone	+7(495) 484-4466
Headquarters	Moscow
Year of Foundation	1997
Number of Employees	7
Programming Languages	Java, Delphi, .Net
About Alsoft	We develope user programms besed on Oracle and modern Web-techology

	Aplana International Project	
URL	www.aplana.com	
Contact E-mail	mail@aplana.com	
Contact Phone	+7(495) 710-7580	
Headquarters	Moscow	
Year of Foundation	2010	
Number of Employees	45	
Programming Languages	C#, Java, .Net	
About Aplana International Project	Aplana is a Moscow based IT company with offices in the USA and the UK. Aplana provides a wide spectrum of high-quality software services for international customers. Along the way, Aplana has built its own reputation and its IT-solutions have always been highly valued by customers and partners. Aplana is the unique company which had 5 Microsoft® Partner Awards in the field of software development. Aplana is a Gold Competencies Microsoft Partner and only one company from Russia which has been selected by Microsoft to join the Windows Azure Circle Program.	

APM	
URL	www.apm.ru
Contact E-mail	com@apm.ru
Contact Phone	+7(495) 514-8419
Headquarters	Korolev
Year of Foundation	1992
Number of Employees	30
Programming Languages	C++
About APM	Research and Software Development Center APM was found in 1992 and specializes in software development for machine elements and units, mechanisms, structures design. The main product of our company is CAD/CAE software system APM WinMachine intended for machine elements calculation and design. Our software contains methods for strength, stiffness, longevity calculation. Some of methods, implemented in WinMachine for non-ideal machine element calculation have no analogues in the world.



Arcadia Inc.	
URL	www.offshore-software.ru
Contact E-mail	info@arcadia.spb.ru
Contact Phone	+7(812) 610-5955
Headquarters	Saint Petersburg
Year of Foundation	1993
Number of Employees	189
Programming Languages	.Net, Java
About Arcadia Inc.	Arcadia, ZAO, founded in 1993, is an innovative offshore software development company providing state-of-the-art custom software development and consulting services to international clientele. Headquartered in St. Petersburg, Russia, Arcadia is ideally positioned to deliver high-quality software services to customers worldwide. Arcadia focuses on Scandinavian and North-American markets.

Arsis	
URL	www.arsis.ru
Contact E-mail	info@arsis.ru
Contact Phone	+7(495) 980-2931
Headquarters	Moscow
Year of Foundation	1993
Number of Employees	40
Programming Languages	MS.NET, Java, C++
About Arsis	The Arsis Company has been successfully operating in the market of corporate information systems (CIS) since 1993, covering the complete lifecycle of services from design to maintenance and development. Our customers are various Russian and foreign businesses (on-ground services of air cargo carriers, hospitals and clinics, wholesale and retail firms, companies specializing in electronic component production, etc.). Our company has all necessary technology to effectively create systems in new subject areas.

ASCON	
URL	www.ascon.ru
Contact E-mail	info@ascon.ru
Contact Phone	+7(812) 703-3934
Headquarters	Saint Petersburg
Year of Foundation	1989
Number of Employees	526
Programming Languages	C++, Delphi, .Net, Python, Java
About ASCON	ASCON works to help its customers grow their business by providing up-to-date technology solutions. Business Areas: Develops an integrated suite of CAD/AEC/PLM solutions; Boosts enterprise productivity through consulting services with the help of IT solutions; Automates systems for managing engineering data; Integrates ASCON solutions with third-party applications; Develops intellectual property protection for enterprises; Supports and maintains solutions across the customer base; Provides educational support programs.



	Axistem
URL	www.axistem.ru
Contact E-mail	info@axistem.ru
Contact Phone	+7(383) 363-3460
Headquarters	Novosibirsk
Year of Foundation	2003
Number of Employees	13
Programming Languages	Java
About Axistem	The Group was formed in 2003 as a result of integration of several companies, which had been functioning from 2000-2001 in adjacent directions. The main goal of integration was the further business development under the mutual trademark with unified approaches and quality specification. The territory of Group's business covers Novosibirsk city and Western Siberia region. There are several subdivisions working within Axistem Group. They are engaged in optimization, automation and supporting of the accounting, sale, marketing and information systems of the commercial and industrial companies.

BACUP IT	
URL	www.bacup.ru
Contact E-mail	info@bacup.ru
Contact Phone	+7(383) 325-0772
Headquarters	Novosibirsk
Year of Foundation	1990
Number of Employees	55
Programming Languages	C#, Java
About BACUP IT	Bacup IT – private Russian software development company with the primary focus on custom business application development. The company was founded in 1990 in Novosibirsk, Russia. Bacup IT gathered the best programmers and software developers and shaped up a solid harmonious software development team. The team consists of diverse in age software specialists with one common goal–use all the expertise and skills to meet growing expectations of our customers.

Bazis-Center	
URL	www.bazissoft.ru
Contact E-mail	info@bazissoft.ru
Contact Phone	+7(496) 623-0990
Headquarters	Kolomna
Year of Foundation	2002
Number of Employees	20
Programming Languages	Delphi
About Bazis-Center	Development and implementation of integrated automation systems for furniture companies Basis

Binom Soft	
URL	www.binomsoft.ru
Contact E-mail	info@binomsoft.com
Contact Phone	+7(831) 437-1357
Headquarters	Nizhny Novgorod
Year of Foundation	2009
Number of Employees	5
Programming Languages	C++, C#, PowerBuilder, PHP, Java
About Binom Soft	Binom Soft is a professional software, mobile application and web development company that stands for quality performance and outstanding customer support. Binom Soft provides a complete set of services in software development, support and testing. Software development — is a main direction in company operation.

	Borlas Retail	
URL	www.borlasretail.ru	
Contact E-mail	info@borlasretail.ru	
Contact Phone	+7(495) 740-4973	
Headquarters	Moscow	
Year of Foundation	2001	
Number of Employees	50	
Programming Languages	Visual Basic	
About Borlas Retail	Borlas Retail Company develops the TradeX retail back-office system which is intended for automation of stores selling clothes, footwear, accessories, jewelry, gifts, sports and children's goods as well as perfumery and cosmetics. The TradeX system considers the specificity of the non-food sector in full measure and allows to automate store networks with distributed object structure (central office, distant warehouse, stores, regional office, stores, warehouses). TradeX guarantees success and profitability of business to Borlas Retail clients.	

BroadView Russia	
URL	www.bvrs.ru
Contact E-mail	info@bvrs.ru
Contact Phone	+7(495) 668-3736
Headquarters	Moscow
Year of Foundation	2005
Number of Employees	60
Programming Languages	SQL
About BroadView Russia	Broadview Russia is development and service associated company of the parent Canadian BroadView Software. The company is developing integrated solutions that help clients manage all their needs in broadcast production and business. BroadView is fully integrated software that combines program acquisitions, scheduling, traffic, ad. management, media library management, VoD, reporting and analysis.



Byte-force	
URL	www.byte-force.com
Contact E-mail	input@byte-force.com
Contact Phone	+7(485) 272-7380
Headquarters	Yaroslavl
Year of Foundation	2000
Number of Employees	10
Programming Languages	C++, C#, Java
About Byte-force	The main branches of work of the company are software product, services and custom implementations. We are providing IT-consulting, business-consulting services. Also we provide content and document management, web applications and design, application design, development tools.

	Cellnetrix
URL	www.cellnetrix.com
Contact E-mail	office@cellnetrix.com
Contact Phone	+7(499) 995-0773
Headquarters	Zelenograd
Year of Foundation	2006
Number of Employees	12
Programming Languages	C, C++, Java
About Cellnetrix	Cellnetrix is a young and dynamic R&D company established in 2006 and focused on the development of the software enhancing mobile security, confidentiality and trust and making usage of network services safer and more reliable. The company implements software for various embedded platforms, first of all, for universal subscriber identity modules (SIM) for various mobile networks such as GSM, UMTS or CDMA, as well as WLAN and Internet, provides value-added mobile applications and full-scale Over-the-Air (OTA) post-issuance management services for (U)SIM and R-UIM cards.

Compass	
URL	www.compas.ru
Contact E-mail	market@compas.ru
Contact Phone	+7(812) 327-7428
Headquarters	Saint Petersburg
Year of Foundation	1991
Number of Employees	80
Programming Languages	C#, C++, VB
About Compass	Compass company is one of the leading Russian software vendors. It develops ERP system of the same name. Company suggests licences of ERP system «Compass» and its separate subsystems (CRM< HRM). Besides it suggests services of software implementation and suppport, development of specialized sotware applications and industry solutions for operation of business. Company implemented hundreds of solutions during the time of its existance since 1991.

COMPETENTUM	
URL	www.competentum.ru
Contact E-mail	info@competentum.ru
Contact Phone	+7(495) 514-1100
Headquarters	Dolgoprudny
Year of Foundation	1993
Number of Employees	100
Programming Languages	C#, .Net, Java, JavaScript, ASP.Net, JEE, Perl, html5
About COMPETENTUM	Competentum is an international group of companies that operates in the global e-Learning software market covering Russia, Europe, and USA. Competentum provides high quality consulting, software and content development services for professional training.

Confirmit Ltd.	
URL	www.confirmit.ru
Contact E-mail	ru.info@confirmit.com
Contact Phone	+7(495) 785-5185
Headquarters	Oslo, Norway
Year of Foundation	1992
Number of Employees	75
Programming Languages	C#, .NET, Java, C++
About Confirmit Ltd.	Confirmit is the world's leading SaaS vendor for multi-channel Customer Feedback, Employee Feedback, and Market Research applications. The company has more than 250 employees and offices in Oslo (headquarters), Cologne, Guildford, London, Moscow, New York, San Francisco, Vancouver, and Yaroslavl. Confirmit's software is also distributed through partner resellers in Barcelona, Kuwait City, Madrid, Milan, Pattaya, Sydney, and Tokyo.

CPS Labs	
URL	www.cpslabs.net
Contact E-mail	info@travelline.ru
Contact Phone	+7(836) 263-0078
Headquarters	Yoshkar-Ola
Year of Foundation	2008
Number of Employees	70
Programming Languages	C#, Java
About CPS Labs	CPS Labs provides IT services to businesses worldwide. We offer full range of software services and solutions tailored to the customer's needs. Our highly professional personnel, great software experience and reliable service ensure creation of products and solutions that surpass customers' expectations. CPS Labs with the headquarter in Yoshkar-Ola, Russia, was founded in 2001 by a group of software engineers. Having focused on the highest quality level of products and services, we have earned the reputation of a reliable and creative team that is always involved.



CROSYS Itd.	
URL	www.crosys.ru
Contact E-mail	info@crosys.ru
Contact Phone	+7(495) 510-0079
Headquarters	Moscow
Year of Foundation	2008
Number of Employees	14
Programming Languages	C#, Java, T-SQL, Ajax, HTML, ASP.NET
About CROSYS Itd.	CROSYS Company is a developer of innovative software products intended for automation of work with information and decision-making. The main direction of our activity is design and implementation of automated systems for collection, processing and analysis of information submitted by individuals and companies (counterparties, employees, borrowers, lessees), and also for the analysis of data received from various sources.

	DataArt [®]	
URL	www.dataart.com	
Contact E-mail	info@dataart.com	
Contact Phone	+1(212) 378-4108	
Headquarters	New York, NY, USA	
Year of Foundation	1997	
Number of Employees	660	
Programming Languages	.Net; Java; C++; PHP; iOS; Android	
About DataArt®	DataArt (www.dataart.com) is a custom software development firm that builds advanced solutions for the financial services, healthcare, hospitality and other industries. Combining domain knowledge with offshore cost advantages and resource flexibility, DataArt develops industry-defining applications, helping clients optimize time-to-market and minimize software development risks in mission-critical systems. With an unrivaled talent pool of highly skilled software engineers in New York, London, Russia and Ukraine.	

DataBase Intelligence	
URL	www.dbi.ru
Contact E-mail	contact@dbi.ru
Contact Phone	+7(495) 662-4813
Headquarters	Moscow
Year of Foundation	2006
Number of Employees	175
Programming Languages	SQL, PL/SQL
About DataBase Intelligence	Boston SoftDesign's 150+ specialists operate from company's headquarters in Boston, Massachusetts, and international offices (DataBase Intelligence) in Moscow and Rostov, Russia, and Kiev, Ukraine.

Devexperts	
URL	www.devexperts.com
Contact E-mail	mail@devexperts.com
Contact Phone	+7(812) 438-1626
Headquarters	Saint Petersburg
Year of Foundation	2002
Number of Employees	300
Programming Languages	Java, Flex
About Devexperts	Devexperts, founded in 2002 and headquartered in St. Petersburg, Russia, is a software development company specialized in professional financial software for on-line securities, derivatives and currencies trading. The highest quality and extensive integration capabilities of our products, as well as 24x7 support services provided by Devexperts, allow for durable and painless operation of Devexperts' solutions.

Digital Design	
URL	www.digdes.ru
Contact E-mail	info@digdes.com
Contact Phone	+7(812) 346-5833
Headquarters	Saint Petersburg
Year of Foundation	1992
Number of Employees	500
Programming Languages	C, C++, .Net
About Digital Design	Digital Design is a Russia-based IT consultancy offering a full range of IT services to our clients in Russia and worldwide. We work with large and SMB companies from a variety of branches including IT, banking, logistics, transportation, manufacturing and public sector. Digital Design services vary from high-end application development, improvement of existing software infrastructure to establishing a Nearshore Development Center for Europe based companies.

DIRECTUM	
URL	www.directum.ru
Contact E-mail	office@directum.ru
Contact Phone	+7(341) 250-5500
Headquarters	Izhevsk
Year of Foundation	2003
Number of Employees	280
Programming Languages	.Net, Delphi
About DIRECTUM	DIRECTUM Company is one of the leaders of Russian electronic document management market. To intensify promotion, development and implementation of electronic document and interaction management system a special department of NPO «Computer» was established in to DIRECTUM Company in 2003.

Dom Programm (domprog) Itd	
URL	www.domprog.com
Contact E-mail	info@domprog.com
Contact Phone	+7(812) 320-2136
Headquarters	Saint Petersburg
Year of Foundation	2001
Number of Employees	17
Programming Languages	C#, PHP, JavaScript, Delphi
About Dom Programm (domprog) Itd	Dom Programm Ltd. specializing in the development of corporate proprietary products; classical applications; client-server solutions, and applications to work with databases; WEB sites development of several level of complexity. We use service oriented architecture approach (SOA), cloud computing, and Software as a Service (SaaS) paradigm; technologies based on modern protocols, data presentations and transformation. We develop in Windows/Linux with MS Visual Studio, Eclipse, Netbeans as development tools. We use C# in .NET and PHP + MySQL with the use of HTML5/CSS3/Ajax.

ETNA Software	
URL	www.etnasoft.com
Contact E-mail	info@etnasoft.com
Contact Phone	+7(812) 448-8530
Headquarters	Saint Petersburg
Year of Foundation	2003
Number of Employees	80
Programming Languages	C#, Java, C++, PHP, Python
About ETNA Software	ETNA Software is a technology solutions provider for capital markets, and has been operating internationally for more than ten years. We create custom software and capital market technical analysis systems for financial technology firms, retail brokers, market makers, exchanges and individual traders. Leveraging nearshore or offshore outsourcing allows our clients to optimize project budget, reduce expenses, and maximize both fiscal and organizational goals. ETNA Software Company is a proud member of FIX Protocol and our products received prestigious Barron's Magazine Awards.

Evelopers	
URL	www.evelopers.com
Contact E-mail	info@evelopers.com
Contact Phone	+7(812) 324-3211
Headquarters	Saint Petersburg
Year of Foundation	1999
Number of Employees	50
Programming Languages	Java, Flex
About Evelopers	eVelopers company was founded in 1999 by a group of dedicated professionals who desired to set up their business in the perspective sphere of IT outsourcing. Headquartered in California, eVelopers maintains presence in Silicon Valley and a global development center in St. Petersburg, Russia. These locations enable eVelopers to serve Russian, European, and American clients. Now the company has more than 10 years experience in designing and developing complex multifunctional custom applications, consulting over business process effectiveness, support and maintenance.

Exigen Services	
URL	www.exigenservices.com
Contact E-mail	info@exigenservices.com
Contact Phone	+7(812) 702-5115
Headquarters	San Francisco, CA, USA
Year of Foundation	1993
Number of Employees	1430
Programming Languages	Java/ Java EE, C++, C#, PHP, .NET
About Exigen Services	Exigen® Services is an Inc. 5000 global IT company that provides application outsourcing services to clients within the Financial Services, Insurance, Telecom and Media industries. We deliver business value and lower the risk of conventional IT projects by leveraging Value-based Project Governance, Performance-based Contracts and Agile Development Practices. We focus on managing IT project risks and maximizing the value.

IBA Group	
URL	www.ibagroupit.com
Contact E-mail	info@ibagroupit.com
Contact Phone	+375(17) 217-3333
Headquarters	Prague, Czech Republic
Year of Foundation	1993
Number of Employees	2640
Programming Languages	All mainframe languages, Java, .Net, C++, SAP, Lotus, Ms AX, Cognos, FileNet
About IBA Group	IBA Group is one of the largest IT service providers in Eastern Europe performing software development, migration, maintenance, support, and IT consulting services with more than 2,500+ IT and business professionals. Headquartered in Prague, Czech Republic, IBA Group has offices and development centers in Belarus, the Czech Republic, the United States, Germany, Bulgaria, Cyprus, Russia, Great Britain, Ukraine, and Kazakhstan. IBA Group focuses on mainframe systems, enterprise applications, web-based solutions, SAP and other ERP systems, and business intelligence.

ICL-KME CS	
URL	www.icl.ru
Contact E-mail	info@icl.kazan.ru
Contact Phone	+7(843) 279-5823
Headquarters	Kazan
Year of Foundation	1991
Number of Employees	1600
Programming Languages	Java технологии: Application Services (JBoss, BEA Weblogic, BM Websphere); J2EE (EJB); WEB (TomCat, Struts, Spring, Seam, Appfuse, JSP Servlet); ORM (Hibernate); GUI (Swing, AWT); XML (JAXB, XSLT); IB
About ICL-KME CS	ICL-KME CS Open Joint Stock Company ICL-KME CS is one of the Russia's largest companies focused on system integration and delivery of total solutions in the area of computer technologies providing consultancy, design, implementation, warranty and software IT outsourcing, service maintenance of computer systems regardless of scale. The Company has a good command of the latest information developments, and it is integrated with the worldwide IT leader: Fujitsu Limited

iiko	
URL	www.iiko.ru
Contact E-mail	iiko@iiko.ru
Contact Phone	+7(495) 780-8811
Headquarters	Moscow
Year of Foundation	2005
Number of Employees	69
Programming Languages	C#, Java, Java Script, C++
About iiko	The iiko team is specialized on developing of integrated software solutions for hospitality industry. iiko solution provides real-time integration of all business processes, hands-on management for a separate restaurant or entire chain of restaurants. Transparent management accounting and financial reporting, automated salary calculation and employee's motivation programs, guest's loyalty management system (CRM), iiko events-based video security system, automated music playback and control for the entire restaurant — all that is just incomplete list of the unique iiko solution capabilities.

Infosoft	
URL	www.infosoft.ru
Contact E-mail	info@infosoft.ru
Contact Phone	+7(495) 797-6711
Headquarters	Moscow
Year of Foundation	1989
Number of Employees	100
Programming Languages	Delphi
About Infosoft	INFOSOFT is a leading Russian developer of IT solutions for the management of enterprises.

	Inreco LAN
URL	www.inrecolan.ru
Contact E-mail	psw@inrecolan.com
Contact Phone	+7(492) 244-4090
Headquarters	Vladimir
Year of Foundation	1989
Number of Employees	55
Programming Languages	Java, MS .Net, C++
About Inreco LAN	Inreco LAN is a software development outsourcing company providing IT-services. Inreco LAN cares about its clients. It is our strong conviction that each project must be completed on time and on budget, with all features and functions originally specified. To ensure that, we work with each our client very closely and carefully. Main benefits for our customers are: • well-educated and highly professional specialists work for our company; • industry standard development processes are used in our company; • QA is strict and standardized; • our prices are comparatively low.

Internet-Frigate	
URL	www.ifrigate.ru
Contact E-mail	main@ifrigate.ru
Contact Phone	+7(863) 522-4110
Headquarters	Rostov-on-Don
Year of Foundation	on 2000
Number of Employees	32
Programming Languages	C#, ASP.NET, PHP, Flash, C#, C++, Java, Win/Linux/Android
About Internet- Frigate	Services: Development of internet-systems and software complexes: from web-sites and social networks to business-process automation, governmental web-services and e-commerce systems. Web-modules with CMS for CRM, SFA, workflow automation, geo-informational systems (GIS), sales, warehouse, logistics automation, collaboration systems, mobile solutions and geo-positioning. Industry experience: logistics, transport and tourism, government, infoservices, trade and marketing, entertainment and edutainment. Technologies: ASP.NET, PHP/PerI, Flash, C#, C++, Java, Win/Linux/Android.

InterSystems	
URL	www.intersystems.ru
Contact E-mail	info@intersystems.ru
Contact Phone	+7(495) 967-0088
Headquarters	Cambridge, USA
Year of Foundation	1978
Number of Employees	1300
Programming Languages	Технологии InterSystems, Java, .Net, C++
About InterSystems	nterSystems Corporation is a worldwide leader in breakthrough solutions for connected care, with headquarters in Cambridge, Massachusetts, and offices in 23 countries. InterSystems Cach?® is the most widely-used database in clinical applications. InterSystems Ensemble® is a seamless platform for integration and the development of connectable applications. InterSystems HealthShare™ is a strategic platform for healthcare informatics, and the creation of an Electronic Health Record on a regional or national scale. InterSystems DeepSee™ is software that makes it possible to embed real-time BI.

ISBC	
URL	www.isbc.ru
Contact E-mail	sale@isbc.ru
Contact Phone	+7(495) 739-8699
Headquarters	Zelenograd
Year of Foundation	2002
Number of Employees	30
Programming Languages	Java, C++
About ISBC	ISBC Holding – "Intelligent Systems of Business Control" – was established in 2002. ISBC core business areas are distribution of smart-card equipment, contact and contactless cards manufacturing, smart-card and RFID personalization services, information security, technological consulting and SMS telecommunication business. ISBC head office is located in Russia, Zelenograd – the district of Moscow, which is proud to be a birthplace of Russian IT.



ISD CO	
URL	www.isd-co.ru
Contact E-mail	info@isd-co.ru
Contact Phone	+7(499) 407-4789
Headquarters	Moscow
Year of Foundation	2001
Number of Employees	30
Programming Languages	PHP, .Net, Java
About ISD CO	Our main business is the development and installation of programming products that help the traditional "brick-and-mortar" businesses to move to the realm of the Internet. ISD Co. specializes on building ERP solutions for enterprises and it offers the whole spectrum of services from optimization of business processes to consulting, to securing and installation of hardware and software, programming development, Internet/intranet solutions, outsourcing.

ISG Consulting	
URL	www.isgc.ru
Contact E-mail	info@isgr.ru
Contact Phone	+7(495) 645-6885
Headquarters	Moscow
Year of Foundation	2009
Number of Employees	85
Programming Languages	C#, T-SQL, .Net Framework, WPF, WCF, NHibernate, Ninject, Castle, VBA, ASP.NET
About ISG Consulting	ISG Consulting has five years of successful experience in developing and implementing the production of financial and economic business models, creating systems of cost management, regulatory, planning and controlling for the largest companies in Russia.

ISS Art	
URL	www.issart.com
Contact E-mail	info@issart.com
Contact Phone	+7(381) 239-4931
Headquarters	Omsk
Year of Foundation	2003
Number of Employees	80
Programming Languages	Java, C/C++, PHP, JavaScript, C#/.Net, Python, Flash/Flex
About ISS Art	ISS Art company was founded in 2003. ISS Art performs a full cycle of Software development: requirements analysis, specification development, architecture planning, coding, testing, integration, software deployment on the customer's server, and further product support. The portfolio accumulated by the company over long years of work includes both simple web-sites and applications and complex web-systems, programmes intended for solving unique problems.

	iTrack	
URL	www.itrack.ru	
Contact E-mail	info@itrack.ru	
Contact Phone	+7(495) 638-5214	
Headquarters	Moscow	
Year of Foundation	2004	
Number of Employees	50	
Programming Languages	C++, PHP	
About iTrack	iTrack was established in the year of 2004. Our mission is to render comprehensive website development and online marketing services. We create internet projects and develop webbased solutions for various business segments. Over a half of our customers are word-ofmouth or return customers. We guarantee creation of technically sound websites and set up marketing communication to increase sales. The portfolio of our services includes auditing which will allow to make your internet project as efficient as possible. The website support is a dedicated activity which allows us to provide quality services.	

	Kentor	
URL	www.kentor.ru	
Contact E-mail	spb@kentor.se	
Contact Phone	+7(812) 325-1300	
Headquarters	Stockholm, Sweden	
Year of Foundation	1983	
Number of Employees	35	
Programming Languages	.Net, C#, Java, Oracle	
About Kentor	Kentor provides custom software development and IT consulting for the clients in the areas of telecommunications and electronic commerce, government and public organizations. High quality of our services is confirmed by the feedbacks from our customers, many of whom have been cooperating with us for more than 10 years. Our employees are Certified Java, Oracle and Microsoft developers and the company is Oracle Certified Partner and Microsoft Gold Certified Partner. Totally we employ 230 persons working in our offices in Stockholm, Gothenburg, Oslo and St. Petersburg.	

KOMECO	
URL	www.komeco.ru
Contact E-mail	eco@komeco.ru
Contact Phone	+7(342) 257-0405
Headquarters	Perm
Year of Foundation	1991
Number of Employees	10
Programming Languages	Delphi, C#
About KOMECO	COMECO has been specializing in software development on a by-order basis and corporate information system implementation since 1991. Today our company provides a full range of programming services such as development, deployment and maintenance of information systems for enterprises and companies working in different fields.
	systems for enterprises and companies working in different fields.

Lab M	
URL	www.lab-m.ru
Contact E-mail	info@lab-m.ru
Contact Phone	+7(846) 244-2540
Headquarters	Samara
Year of Foundation	2006
Number of Employees	7
Programming Languages	Python, C, C++, Java, Fortran
About Lab M	Lab M is a software development company, specializing primarily in mathematical modelling, data analysis, process automation and GIS.

Lanit-Tercom, Ltd	
URL	www.lanit-tercom.comru
Contact E-mail	contact@lanit-tercom.com
Contact Phone	+7(812) 428-4194
Headquarters	Saint Petersburg
Year of Foundation	1991
Number of Employees	300
Programming Languages	C/C++, C#, Cobol и др. legacy-технологии
About Lanit-Tercom, Ltd	Lanit-Tercom is one of the leading Russian providers of software and hardware solutions, with more than 20 years of experience in the Russian IT industry. Among the company's clients are large-scale USA and European companies as well as clients from Russia. Lanit-Tercom advantages: • Close cooperation with the strongest scientific professionals from St. Petersburg State University (Mathematics and Mechanics department) • A strong capability in science-intensive research and development • Non-standard solutions for data processing algorithms and work control algorithms, full cycle

MOBITECH	
URL	www.mobitechnologies.com
Contact E-mail	info@mobitechnologies.com
Contact Phone	+7(812) 333-1869
Headquarters	Saint Petersburg
Year of Foundation	2003
Number of Employees	15
Programming Languages	C++, Java, Asembler, PHP, Perl
About MOBITECH	We've been installing and supporting combined hardware and software systems for cellular system operator, providers and telecom. All of them have been implemented on the basis of our own developed software. The main directions — VAS, AAA & Policy, CAMEL, IN, Messadging (SMSC, MMSC, USSDC, unified messaging), SMPP routing etc.

Netris	
URL	www.netris.ru
Contact E-mail	info@netris.ru
Contact Phone	+7(495) 950-5525
Headquarters	Moscow
Year of Foundation	2006
Number of Employees	45
Programming Languages	Java, C++
About Netris	Netris is the leader in software development and systems integration for service providers, banking institutions and contact-centers. The company's staff consists of highly skilled programmers and engineers, who implement the goals set by customers in a professional manner. It is the high level of professionalism and the focus and dedication of Netris employees which gives the company a market leadership position and competitive edge.

NetworkProfi	
URL	www.lanagent.ru
Contact E-mail	sales@lanagent.ru
Contact Phone	+7(345) 252-1235
Headquarters	Tumen
Year of Foundation	2005
Number of Employees	5
Programming Languages	C++, Delphi
About NetworkProfi	The main activity of the NetworkProfi company is software development in the area of inforamtion monitoring and protection.

Nevlabs Nevlabs Nevlabs Nevlabs Nevlabs Nevlabs	
URL	www.nevlabs.ru
Contact E-mail	mailbox@nevlabs.ru
Contact Phone	+7(495) 504-4901
Headquarters	Moscow
Year of Foundation	2008
Number of Employees	9
Programming Languages	.Net, C#, PHP, JS
About Nevlabs	Nevlabs Ltd is company that develops individual software. Small size allows us to get qualified developers and do our work in time and with good quality.

NooLab	
URL	www.noolab.ru
Contact E-mail	noolab@noolab.ru
Contact Phone	+7(383) 222-4489
Headquarters	Novosibirsk
Year of Foundation	1998
Number of Employees	7
Programming Languages	PHP, Perl, Java
About NooLab	Web-sites development, web-design, web-applications development, web-hosting, SEO, CRM-systems development, text analysis, AI research and development.

Oktet labs	
URL	www.oktetlabs.ru
Contact E-mail	info@oktetlabs.ru
Contact Phone	+7(812) 784-6591
Headquarters	Saint Petersburg
Year of Foundation	2003
Number of Employees	30
Programming Languages	C++
About Oktet labs	OKTET Labs provides design and development services for embedded and networking systems software. The main OKTET clients are developers and manufacturers of various high-tech equipment: from high performance Ethernet adapters to avionics. The company was established in 2003, but the core of the team dates back to 1996, implementing an ATM switch for one of big European telecommunication equipment vendors. Starting from that time the main development tools of the team are Linux OS and GNU toolkit, and the target systems are VxWorks, RTEMS and Embedded Linux occupying now most of the market.

OOO CONSTANT	
URL	www.constant.obninsk.ru
Contact E-mail	andrey@constant.obninsk.ru
Contact Phone	+7(910) 913-5403
Headquarters	Obninsk
Year of Foundation	2001
Number of Employees	52
Programming Languages	Java, C# .Net, PHP, C++
About OOO CONSTANT	Constant is a nearshore software development company, benefiting from the huge potential of highly educated software professionals in science cities. Located in Obninsk, Visaginas, Helsinki, Prague. Constant offers you dedicated teams of typically 3-12 software developers, who work as they were your own team. The team consists of a project manager and software developers in various technology and competence areas. The most common solution areas we work in are: Web application development in JAVA, PHP and .NET Windows client server application in JAVA and .NET



Oracle Development SPB	
URL	www.oracle.com
Contact E-mail	Grigori.Labzovsky@oracle.com
Contact Phone	+7(812) 334-6000
Headquarters	Oracle
Year of Foundation	2004
Number of Employees	300
Programming Languages	Java, C, C++
About Oracle Development SPB	The St. Petersburg High Tech Center LLC «Oracle Development SPB» employs more than 300 software developers. Software, development tools, and technologies developed at the High Tech Center are further used as a platform for building solutions both by the end users and software companies such as IBM, Google, and Microsoft. Software solutions from Oracle (Java, MySQL, VirtualBox, Oracle Studio, etc.) are in great demand on both the world and the Russian markets among software companies producing solutions of various levels, in state and commercial structures, education and science.

	Pangea JSC	
URL	www.pangea.ru	
Contact E-mail	info@pangea.ru	
Contact Phone	+7(495) 912-1023	
Headquarters	Moscow	
Year of Foundation	1994	
Number of Employees	80	
Programming Languages	C++, C#	
About Pangea JSC	PANGEA Inc. since 1994 is a leading Russian consultant in upstream oil&gas industry and the leading Russian developer of high-technology software systems for geophysical and geological data processing, interpretation and modeling. To provide the highest possible reliability of our recommendations we also perform geophysical surveys, including seismic, gravimag, electromagnetic data acquisition added by geochemical exploration services. PANGEA's customers list include most of Russian major oil & gas companies, more than thirty Chinese oilfields, ONGC (India), OMV (Austria), REPSOL (Spain), JOGMEC (Japan), Naftogaz India, GAIL (India) and many others.	

Relex	
URL	www.relex.ru
Contact E-mail	market@relex.ru
Contact Phone	+7(473) 271-1711
Headquarters	Voronezh
Year of Foundation	1990
Number of Employees	150
Programming Languages	C, C++, JAVA, C#, PHP, Visual Basic, Python, JavaScript, XML, JSP, J2ME, Apache, IIS
About Relex	RELEX company group is: • custom software development (IT outsourcing); • packaged software development and delivery; • software customization and implementation; • technical support and maintenance; • IT consulting. The RELEX group, one of the leading Russian software vendors, has been in the industry since 1990. Each company in the RELEX group specializes in a particular area of IT. Therefore we can satisfy the needs of clients within a broad range of software-related services: from delivering «box» versions of products to custom DBMS versions and application development projects.

Samany	
URL	www.thesamany.com
Contact E-mail	info@thesamany.com
Contact Phone	+7(382) 222-6699
Headquarters	Tomsk
Year of Foundation	2010
Number of Employees	19
Programming Languages	PHP, JavaScript, AJAX, XML, HTML4/5, CSS2/3, Yii Framework и ExtJS Framework, MySQL, PostegreSQL, EgalCMS, EgalCore, EgalSoft
About Samany	Design and creation of websites, software, different levels of complexity. A wide range of design services, as well as a photographer and artist services. We, «Samani» with experience in the team 2 years, we have to his credit more than 60 successfully completed projects and more than 45 clients, some of which are state institutions.

Sinercom	
URL	www.newlinestudio.ru
Contact E-mail	prog@sinercom.ru
Contact Phone	+7(812) 635-8123
Headquarters	Saint Petersburg
Year of Foundation	2007
Number of Employees	8
Programming Languages	PHP, C#, ASP, Java
About Sinercom	The company Sinercom and Development Division NewLineStudio — a professional software developer and solutions in business management for companies of various sizes and industries. The main activities: — Development of information systems based on Web technologies, SaaS solutions, «Cloud» services — Automated Client Management — CRM (Customer Relationship Management)

Smart Solutions	
URL	www.smartsolutions-123.ru
Contact E-mail	info@smartsolutions-123.ru
Contact Phone	+7(929) 702-2200
Headquarters	Samara
Year of Foundation	2010
Number of Employees	62
Programming Languages	C#, Java
About Smart Solutions	Multi-agent technology for resource allocation, scheduling and optimization

Smart-Soft	
URL	www.smart-soft.ru
Contact E-mail	info@smart-soft.ru
Contact Phone	+7(495) 775-5991
Headquarters	Kolomna
Year of Foundation	2003
Number of Employees	20
Programming Languages	Delphi, C#, C++, Java
About Smart-Soft	Founded in 2003, Smart-Soft is a privately owned Russian software development company specializing in Internet technology solutions. Smart-Soft has a range of software products that allow businesses to connect, collaborate and communicate securely and to resolve the problems that can arise when using the Internet.

Softage LLC	
URL	www.softage.ru
Contact E-mail	kontakt@softage.ru
Contact Phone	+7(383) 330-9655
Headquarters	Novosibirsk
Year of Foundation	2003
Number of Employees	40
Programming Languages	C#, C++, Java
About Softage LLC	Softage LLC is a global provider of IT sourcing services with proven project management methodology and global delivery models. Our development center is located in Novosibirsk, the third largest scientific center of Russia. Softage has excellent competences in industries like Telecom, Banking and Financial Services, Transportation and others.

Sonda Technologies	
URL	www.sonda-tech.com
Contact E-mail	sonda@sonda-tech.com
Contact Phone	+7(351) 354-6800
Headquarters	Miass
Year of Foundation	2009
Number of Employees	52
Programming Languages	C++
About Sonda Technologies	The Sonda Technologies Company exists on the market of Biometric more than 17 years and is one of the worldwide leaders creating Biometric Identification Systems. High level of Sonda identification technology was proven on International Tests, conducted by the International Biometric Association and the National Institute of Standards and Technology for many times. Sonda systems are exploited in many countries: Russia, Latvia, Moldavia, Ukraine, Uzbekistan, Kirghizia, Tadjikistan, Syria, Uruguay, China and others.

Speech technology center (STC)	
URL	www.speechpro.ru
Contact E-mail	stc-spb@speechpro.com
Contact Phone	+7(812) 325-8848
Headquarters	Saint Petersburg
Year of Foundation	1990
Number of Employees	350
Programming Languages	C#, C++, Java
About Speech technology center (STC)	Speech Technology Center (STC) is an international leader in speech technology and multimodal biometrics. It has over 20 years of research, development and implementation experience in Russia and internationally. STC is leading global provider of innovative systems in high-quality recording, audio and video processing and analysis, speech synthesis and recognition, and real-time, voice and facial biometrics solutions. STC innovations are used in both public and commercial sectors, from small expert laboratory.

SPIRIT DSP	
URL	www.spiritdsp.com
Contact E-mail	info@spirit.ru
Contact Phone	+7(499) 518-8725
Headquarters	Moscow
Year of Foundation	1992
Number of Employees	120
Programming Languages	C++
About SPIRIT DSP	SPIRIT DSP is a global brand in HD quality voice and video over IP software, and is known for pioneering innovative technology for the highest quality voice and video. More than 200 million channels in 80 countries are powered by SPIRIT's software. SPIRIT's voice and video software platform turns smartphones, tablets and PCs into multi-point video-conferencing endpoints and allows carriers, service providers, device manufacturers, application developers and solution providers to streamline time-to-market, differentiate from competition, enhance customer loyalty, reduce churn and boost revenues

Stack Soft CJSC	
URL	www.stacksoft.ru
Contact E-mail	info@stacksoft.ru
Contact Phone	+7(495) 980-6005
Headquarters	Moscow
Year of Foundation	2001
Number of Employees	52
Programming Languages	C++, Java
About Stack Soft CJSC	Stack Soft CJSC - Independent software vendor providing BSS/OSS solutions under the brand Onyma®.



	StarForce	
URL		www.star-force.com
Conta	ct E-mail	info@star-for.ru
Conta	ct Phone	+7(495) 967-1450
Heado	quarters	Moscow
Year o	of Foundation	2000
Numb Emplo		40
Progra Langu	amming Jages	C++, C3, .Net
About	t StarForce	The StarForce company has the ultimate expertise in software development and digital content protection from copying, hacking and unauthorized use. For more than 10 years we have been successfully developing and implementing our state-of-the-art software solutions providing copyright and intellectual property protection worldwide. StarForce provides a wide range of reliable tools for software and content protection from: Commercial replication and private copying; Emulation; Professional hacking; Unauthorized distribution; Unauthorized disclosure; Uncontrolled access; Unintended use.

Sunrise-r Ltd.		
URL	www.sunrise-r.ru	
Contact E-mail	info@sunrise-r.ru	
Contact Phone	+7(903) 824-2835	
Headquarters	Yaroslavl	
Year of Foundation	2011	
Number of Employees	12	
Programming Languages	C#, ASP.NET, Java, C++, Qt, Spring, Hibernate, JavaScript, jQuery, PHP	
About Sunrise-r Ltd.	The company Sunrise-R offers custom software development services. Programming languages, platforms: .NET (C#, ASP.NET), ASP.NET MVC, NHibermate, Castle Record, WCF, NUnit, Quartz.NET Java, J2EE, JUnit, Ant, GWT, Hibernate, Spring, JasperReports, Quartz Scheduler, JPA MS Visual C++ GNU C/C++ (gcc), Qt Python, Django Database: MS SQL Server, Oracle, PostgreSQL, MySQL, ODBC, JDBC, systems Design, project management: UML, Visio, Dia Agile Development, Planning poker, the organization of the evaluation of priorities, parallelizationworks.	

Synapse	
URL	www.synapse.ru
Contact E-mail	timur@synapse.ru
Contact Phone	+7(495) 434-3638
Headquarters	Moscow
Year of Foundation	1990
Number of Employees	30
Programming Languages	C++
About Synapse	For about 15 years SYNAPSE Science Center is at the market of seismological and geophysical software for data acquisition, transmission and processing systems. Its portfolio consists of dozens of products and R&D projects. Its application software and integration solutions work for universities, governmental agencies and private companies all over the world.

Technologika		
URL		www.technologika.ru
Contact E-ma	il	sales@technologika.ru
Contact Phon	ie	+7(383) 332-4429
Headquarters	5	Novosibirsk
Year of Found	dation	2007
Number of Employees		75
Programming Languages	J	.Net, Java
About Techno	ologika	Technologika develops and implements Microsoft Sharepoint based systems, provides software development services (including mobile applications), services for integration of business process management applications, IT consulting and software licensing.

Total Objects Ltd.	
URL	www.totalobjects.co.uk
Contact E-mail	enquiries@totalobjects.co.uk
Contact Phone	+7(812) 303-8398
Headquarters	Saint Petersburg
Year of Foundation	1999
Number of Employees	100
Programming Languages	.Net, C#, Visual Basbc
About Total Objects Ltd.	Total Objects Services is a software development house headquartered in StPetersburg, Russia. For over 10 years we have been providing a wide range of IT services worldwide through matching Western business demand with Russian technology potential.

Toxsoft Ltd	
URL	www.toxsoft.ru
Contact E-mail	maic@toxsoft.ru
Contact Phone	+7(495) 628-9150
Headquarters	Moscow
Year of Foundation	1993
Number of Employees	50
Programming Languages	Java
About Toxsoft Ltd	ToxSoft is an engineering company and provides integrated solution of engineering problems concerned with industrial production modernization based on latest technologies. Directions of works: The development unique technical solutions and the creation new technologies for industrial production; The solution Customer's engineering problems adequately and effectively; The implementation of construction projects to introduce new technologies; The company specializes mainly in aluminum and steel industries, thermal power, production of compressed air.

Transas Technologies Ltd.	
URL	www.transasmarine.com
Contact E-mail	tt@transas.com
Contact Phone	+7(812) 325-3131
Headquarters	Saint Petersburg
Year of Foundation	1993
Number of Employees	306
Programming Languages	C++ ; C#, Java, Phyton
About Transas Technologies Ltd.	Transas (TRANsport SAfety Systems) is a world-leading developer and supplier of a wide range of software, integrated solutions and hardware technologies for the marine industry: — ECDIS (Electronic Chart Display and Information Systems); — Integrated Navigation Systems; — Wide range of maritime simulators; — Vessel Traffic Management Solutions Today, the number of Transas employees worldwide exceeds 1500 people, while company's products are being distributed and supported by a vast network of representative offices in some 110 countries.

VGroup	
URL	www.vgroup.ru
Contact E-mail	inbox@vgroup.ru
Contact Phone	+7(383) 289-9077
Headquarters	Novosibirsk
Year of Foundation	1999
Number of Employees	30
Programming Languages	PHP, C++, Java
About VGroup	The VGroup company has been working in IT field since 1999, servicing both Russian and overseas clients. We develop e-commerce websites, specialize in usability engineering and web interface design, carry out outsourcing software development projects. Among our clients are S7 Airways company, East-Siberian Railroad, Swiss holding Komax AG, the Ministry of Emergency Situations of Russia.

Video Test	
URL	www.videotest.ru
Contact E-mail	info@videotest.ru
Contact Phone	+7(812) 303-8398
Headquarters	Saint Petersburg
Year of Foundation	1991
Number of Employees	27
Programming Languages	C++, .Net
About Video Test	VideoTesT Company was founded in 1990 in Saint-Petersburg, Russia, and started its activity with developing software for processing images obtained with the microscope in the field of composite structure research. Nowadays the Company develops up-to-date software and image analysis systems, which are widely used in various fields of medicine, biology, material science and many others.



Industries

- Banking & Financial Services
- Business Information & Media
- ISVs & Technology
- Retail & CPG
- Travel

Solutions

- Cloud/SaaS
- Business Intelligence
- Mobile
- eCommerce
- Portals & Content
- SAP Technologies
- UXD
- Technology Solutions (Java, MS, LAMP)

Focused Services

- Software Product Development
- Application Development
- Enterprise Application Platforms
- Maintenance & Support
- Testing & QA
- ASM & Infrastructure

EPAM Systems, Inc. (NYSE:EPAM) is a global software engineering and IT consulting provider. Headquartered in the United States, EPAM employs IT professionals and provides services to clients worldwide using a global delivery model. EPAM has branch offices and software development centers in the United States, Canada, UK, Germany, Sweden, Switzerland, Hungary, Poland, Belarus, Russia, Ukraine, and Kazakhstan.

Who we are

- 7,750+ IT professionals across 12 countries
- On-site or Nearshore senior-level software engineers
- EPAM Competency Centers as a centralized hub of relevant industry/technology expertise
- Mature delivery and management model with CMMI Level 4
- ISO 9001:2000, ISAE 3000 Type 2, ISO/IEC 27001:2005 certifications and ITIL V3 adopted framework

Awards









Selected Clients



















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