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10-TH ANNUAL SURVEY

2013

RUSSIAN SOFTWARE DEVELOPING INDUSTRY AND SOFTWARE EXPORTS

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2013

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Dear colleagues! Dear friends!

I am very happy to present you the results of the 10th annual survey of the software export industry in Russia.

The research was conducted by RUSSOFT (Association of software companies, RUSSOFT) from February to April, 2013 when more than 140 market players were interrogated.

This year we celebrated the 10th anniversary of our research, so we decided to improve the methodology and to revise the previously obtained results. During the revision we came to conclusion that our last year's estimates of export value of the Russian software and of software development services were almost completely confirmed (with a very small correction upwards). The ratio of export shares of different industry's segments has slightly changed, but it has not led to major changes in the identified trends and the previously drawn conclusions.

Now we can even more safely judge the industry position in the global market, to trace dynamics of its development, to identify long-term and medium-term tendencies as well as to predict the further course of events.

The last year passed within the global contraction of the economic growth and with a slowdown in the Russian industrial growth. This period was also marked by the 'rebound' in the Russian IT market dynamics – the market volume practically remained at the previous year's level. Nevertheless, in 2012 the Russian software development industry continued to develop actively, having increased its export almost by 15% and having reached the export volume of 4.6 billion dollars. The last year was notable for several distinctive features: a whole group of Russian software vendors were included in the so-called "Magic Quadrants" of Gartner and Russian service companies strengthened their positions in the international ratings. The trend of attracting investments into the Russian IT industry became more apparent (two more Russian representatives – Luxoft and QIWI successfully held the IPO procedure and entered the world financial market, while venture investments in the Russian IT grew up to 2.3 times compared to the previous year.

I would like to catch this opportunity and to thank the Confirmit and Toy Opinion for their effective support of source information collection, to PROMT for their professional translation services as well as to convey our sincere gratitude to Andrey Terekhov, professor of St. Petersburg University, for his participation in the report editing. And certainly, I wish to give kind words of gratitude to our analyst Dmitry Zhelvitsky for his fantastic work on putting together all the obtained information.

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

Many thanks to all survey participants who provided information on their companies. The jubilee research summarizes the result of the industry development decade, and this result is very positive. The industry is rapidly developing and is becoming a significant and respected global market player.

Best regards,
Valentin Makarov
Executive Editor
RUSSOFT Association President

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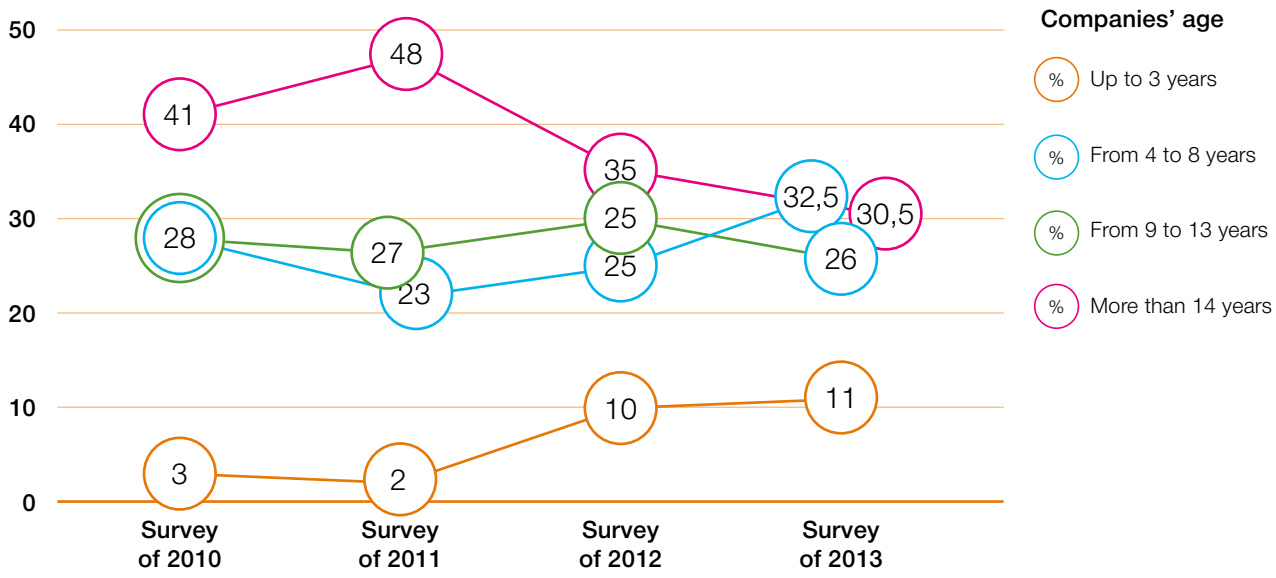
METHODOLOGY

The research that RUSSOFT Association conducts annually since 2004 traditionally begins with a polling of a regularly updated database of 1400 Russian companies and organizations which are engaged in the international software development. The survey was carried out using technology of Comfirmit with participation of the Toy Opinion marketing agency. In addition to this, RUSSOFT performed its own survey of its members. During the research only companies which have foreign contracts (irrespective of their export share in the total amount of sales) were selected in both cases. As a result, 144 high-quality questionnaires filled by software export companies were collected.

It should be noted that the line-up and the structure of respondents is considerably changing from year to year. Only 26 respondents (18%) participated in the survey both this year and last year. However, as a whole, these changes do not prevent from compar-

01. Respondents' distribution by market operation duration



02. Distribution of respondents depending on their specialization:

Year of survey	Software companies (product companies)	Foreign corporations' development centers	Software development service providers	Service and product companies
2012	22%		78%	
2013	29%	3%	59%	9%

* In 2012, the "service and product" companies were regarded as the service companies, and foreign companies' development centers did not participate in the survey.

ing the survey results obtained in the last 2 years and from revealing the current trends. Besides, a relative increase in this or that respondents' group in certain cases reflects real processes in the software industry. For example, a sharp increase in the share of brand new companies (with an effective period less than three years) from 2% to 10% which was revealed in the last year is connected with a significant growth of the number of startups appearing after 2008. The information on such increase is confirmed by the venture companies and investment funds operating in Russia. The fact that this change was not revealed 1-2 years earlier is explained by a certain delay in including new companies in the exporter database.

This year, the share of companies operating less than 3 years remained at the last year's level (or slightly increased) and reached 11%. This means that a hyperactivity period in startup creation still goes on.

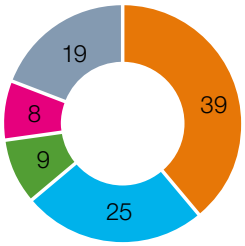
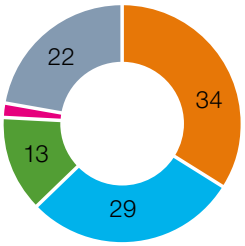
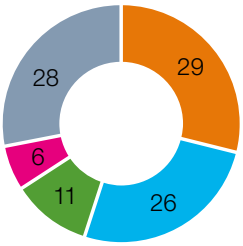
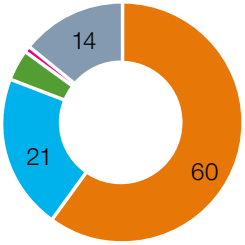
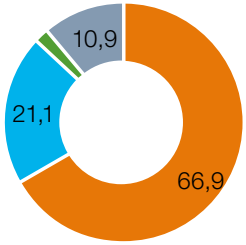
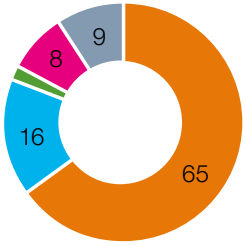
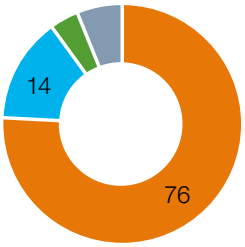
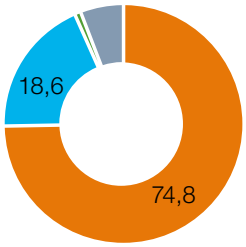
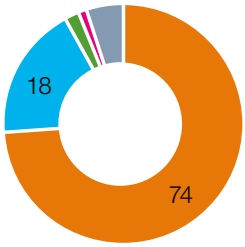
This year, the challenge of attributing certain companies according to the product or service business model becomes especially obvious. Many custom software developers eventually create their own standard solutions. These solutions are sold in parallel with the delivery of software development services, otherwise service companies develop new systems on customer's requests based on their own existing solutions. The companies with the equivalent income from both sale of licensed software and from software development services were put together into a new category – «service and product companies»

Several new questions describing service companies' activities were added to the questionnaire. In particular, the following points were determined: a payment model for service contracts (payment on "time and material" or on a "fixed price"), a customer relationship model (custom software development, creation of the customer's offshore development center or both models), a type of services offered by service provider (software development, software testing, software technical support, IT consulting and others), types of service companies' clients (system integrator, end-user, software development subcontracting and so on).

Besides, thanks to the change in the wording of the question regarding the price of the company's working hour offered to the customer, additional information for analysis appeared. The information on the man-hour cost was classified by areas of expertise so the number of answers to the corresponding survey question sharply increased.

There was one more change – separation of the largest companies (with the turnover over $20 million) in two categories: with the turnover from $20 million to $100 million and those with the turnover over $100 million. This change was connected with a significant growth of largest companies in the recent years. As a result, very large companies (by Russian standards) became «global» and they should be considered separately from other "conditionally" large companies.

During all years of research, there was a dominance of Moscow and St. Petersburg companies among respondents. The two

Year of survey	2011	2012	2013
03. Distribution of respondents by central office location			
04. Distribution of respondents' cumulative income distribution by central office location			
05. Distribution of respondents' consolidated export revenues by central office location			

Russian capitals are accounted for 55% of respondents, for 81% of aggregate income and for 92% of consolidated export revenues. The financial crisis of 2008 accelerated the process of business consolidation in the Russian software industry (it especially concerns custom software developers) that resulted in a small increase in the share of Moscow and St. Petersburg, where largest Russian export companies are concentrated.

This year survey results allow assuming a change of balance of power between capitals and regions. A gradual but steady reduction of the gap between two capitals and regions has been outlined. Outside Moscow and St. Petersburg, the number of companies is growing slightly quicker and new large companies appear. Examples of such large regional companies are MERA Networks in Nizhny Novgorod, PROGNOZ in Perm, ICL-KME CS in Kazan, Parallels and Alawar in Novosibirsk.

Actually, considering the difficulties of obtaining questionnaires from provincial companies and the fact that more than a half of large Moscow or St. Petersburg companies have their software development centers in the regions (at least one regional development center each), the contribution of regions into the export of software and of development services is much greater.

Companies representing 35 Russian cities took part in the survey (by the location of the headquarters or of their main production site). In 10 more cities there are no companies' headquarters but there are remote development centers. Thus, industrial software development for export is conducted at least in 45 Russian cities. Considering sales offices as well, the respondent companies have employees in 60 Russian cities.

The total revenue of all respondent companies was $1724 million, and the export

06. Distribution of the respondents by their turnover

	Less than $0.5 million	From $0.5 million to $4 million	From $4 million to $20 million	Over $20 million	From $20 million to $100 million	Over $100 million
2008	39%	39%	15%	8%		
2009	24%	58%	13%	5%		
2010	31%	48%	14%	7%		
2011	19%	53%	20%	8%		
2012	15,5%	60,6%	12,7%	(11,2%)	7,7%	3,5%

07. Distribution of the respondents depending on their aggregate income

	Companies with turnover					
	less than $0.5 million	from $0.5 million to $4 million	from $4 million to $20 million	higher than $20 million	from $20 million to $100 million	higher than $100 million
2009	1%	17%	18%	64%		
2010	2%	13%	20%	66%		
2011	1%	10%	16%	73%		
2012	0,5%	7,7%	8,9%	(82,9%)	20%	62,9%

revenue was $1049 million (61% out of the total turnover). Last year, their average share of export was 68%. Its reduction is explained not only by random fluctuations but also by the fact that the income from sales in the domestic market in 2012 increased more than export (that reflects the growth of the Russian IT market in connection with deferred demand after the crisis).

About 80% of the aggregate income of all respondents accrues to 10% of the largest companies. As the survey mainly covers the largest companies (especially since the majority of them belong to the RUSSOFT Association and traditionally participate in the research), the real ratio for the entire industry is somewhat different. However, it may safely be said that the share of large companies is at least 70% (if not 80%) of the total market. The contribution of the largest companies to the aggregate export revenues is even higher (about 85% of the export income of all respondents accrues to 10% of them). The tendency of market consolidation remains the same during all recent years. Large companies are growing quicker than small ones.

When considering the structure of the aggregate income and the share of export depending on responds' headquarter location, we need to take into account the fact that by 2008–2010 the formation of the Russian software development industry «pyramid» had come to the end. At the top of the pyramid there is a group of leaders which naturally have turned into the global corporations that have their sales offices in all leading markets and the branched-out network of development centers in Russia and other countries.

The situation in the lower part of the pyramid is not so stable.

The number of respondents (in relative values) with the turnover less than $0.5

08. Distribution of the respondent companies depending on their export income

	Companies with turnover				
	less than $0.5 million	**from $0.5 million to $4 million**	**from $4 million to $20 million**	**from $20 million to $100 million**	**than $100 million**
By the results of 2012	0,3%	4,2%	8,2%	16%	71,4%

million and turnover from $4 to $20 million considerably reduced. It cannot be explained by random factors only. The decrease of the smallest companies share is connected with the fact that startups began to overcome the turnover level of half a million dollars quicker. Also, there is every indication that a part of the smallest companies does not sustain competition both in the service and software product market and in the labor market. It is understandable as they can not use tax incentives in social payments. This factor is one of the most powerful reasons for the decrease in the share of small companies among the survey participants.

The largest Russian software vendors, as is usual with them, did not participate in the survey directly. Information on their financial performance was collected from different sources: mass media publications, companies' press releases and their web sites. We also used estimations of external industry experts and the data received when communicating with company managers (all data on companies' financial performance collected within this research is used for calculation of cumulative revenue only and cannot be divulged).

Foreign corporations' research centers which provide cross-border software development services for their parent companies are not willing to disclose information on their turnover. The assessment of turnover and of aggregate income of such development centers was performed based on the expert estimations taking into account the available data on the their staff, the results of interviews with corporation representatives and information of recruiting agencies which fix mass increase or decrease in the number of personnel of such centers. Nevertheless, this year several software development centers of large foreign corporations provided information for our research, although the data was limited.

The results of the survey conducted by RUSSOFT in February-April 2013 constitute the basic information for this research. At the same time, a considerable part of the information about the situation in the industry and in the various markets was received from other sources. First of all, we can mention the ratings of authoritative analytical agencies, research companies' reports, information from foreign and international software developers associations, publications in Russian and foreign mass media (the news were mainly monitored on the following media resources: CNews, Computerworld Russia, ITRN portal). In this research, we also used opinions of experts, results of the express polls of recruiting agencies and the statistics of training centers, as well as the information received by experts directly during communication with managers of companies (and many of these companies did not take part in the survey). Especially, we should mention the ANCHOR High Technologies and SuperJob recruiting agencies which provided the most complete and detailed information on the labor market situation.

After research completion and report preparation, the text of the report and the drawn conclusions were revised by experts (the heads of companies that play an active role in the RUSSOFT Association). Besides, the experts commented on some discovered changes and tendencies.

As the questionnaire sent to respondents changes insignificantly and includes the same

key parameters for comparing companies' indicators for several years, it allows revealing the industry tendencies and maintaining measurement process continuity. This is facilitated by engaging into the whole process those experts who are in charge of the leading RUSSOFT companies and have been moral authorities for the entire industry for many years.

CHAPTER 1

POSITIONS OF RUSSIA IN THE GLOBAL MARKET OF SOFTWARE AND SOFTWARE DEVELOPMENT SERVICES

Russia in the Global IT-ratings

Arkadiy Dobkin
CEO and President,
EPAM Systems

For EPAM, our delivery centers in the region play a strategic role. It is not only about the geographic proximity to our clients in Western Europe. It is also about an exceptional engineering talent we have access to in this geography; it is about developing and serving local and international clients in Russia, Ukraine, Belarus, and Kazakhstan, which are looking to benefit from our strong international expertise in many industry and business IT solutions which might be also in high demand at those markets.

We also see a positive tendency coming up, when many more IT events are happening annually in the region, more talented software engineers are recognized in their native countries, more domestic organizations are eager to benefit from advanced software solutions and best IT practices locally. In its turn, EPAM invests into helping young IT specialists through multiple educational initiatives and setting training labs together with the leading local universities. We do believe all that helps push the market forward, and that is what we have been trying to do for 20 years of EPAM's active presence in the region.

For the last year, Russia improved its positions in the various global IT related ratings which reflect the level of IT development and usage, as well as conditions for conducting business. Similar processes are observed in the majority of IT-ratings for several last years, however for the first time there has not been noted any exception connected with deterioration of any of them.

In some cases negative publications in the mass media have been producing their impact on experts who created these ratings. Then they were partly guided by political stereotypes, maintaining political games and creating of Russia an image of the enemy. This orientation was partially enforced because Russian companies, universities and state structures were not always aspiring to provide all information that is necessary for analysts.

At the same time, movement up of Russia in world IT-ratings was not only caused by available real information about its development and about the carried-out reforms, but also by growing information openness of the Russian government bodies and of commercial structures. For example, just in a year Russia flew up 32 positions higher 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. This rating was published by the United Nations. It reflects the readiness and the feasibility of the state agencies from 193 countries to use ICT to provide the state services.

Certainly, Russian government made some decisions that contributed to the increased use of IT and of the Global network in the interaction of various departments and the government institutions with the citizens. Particularly to be noted that a unified 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 work is underway and there is a progress but that progress could not be so great in such a short term.

In reality Russia jumped from one category of countries of the rating to another – from countries with emerging economics to the economically developed countries – just in a year. Moreover, countries in this rating 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 was caused by efforts on the e-government programs that were undertaken in Russia within several years, but analysts got information about them and estimated results no earlier than a year ago.

In e-Government Survey 2012, Russia took the 37th place in the online services development, the 30th place in the level of the ICT-infrastructure development and the 44th place in the human capital development. All three indexes were improved for Russia.

Doing business

Apparently Russia takes worst positions in the Doing Business rating which is compiled by the World Bank experts occupying the 112th place among 185 countries. However there was a step up by 8 places compared to the last year that testifies to a certain progress. It should be noted that the World Bank traditionally estimates the situation in Russia worse than other international organizations and sometimes predicted decline in the Russian GDP that was not confirmed by subsequent events. The Ministry of Economic Development of the Russian Federation considers that Russia should already take the 44th place in this rating. It may be realistically assumed that Russia's position in the rating may be somewhere within 40th-60th places. Vladimir Putin, the incumbent president of Russia, demanded at the end of 2011 (then he held the position of the prime minister) that by 2020 Russia should move up in the Doing Business rating to the 20th place.

World Competitiveness Yearbook (by IMD)

In the World Competitiveness Yearbook 2013 published annually by IMD (International Institute for Management Development, Switzerland) Russia took the 42nd place among 60 countries, after having risen by six positions for the year. The researchers have noted the substantial achievements in the state of the economy. The rating is compiled based on statistics and on surveys of corporate leaders (4,200 people interrogated, including about 100 in Russia).

The main reason for the increase in the Russia's rating position is the data on the employment – the country moved up by this parameter from the 27th to the 13th place. Experts also acknowledged the following strong or improving Russia's indicators: low level of public debt, low personal income tax, stable interest rate, high level of employees' education and qualifications. They also marked as weak or worsening indicators the following: imbalanced export, weak pension system, underdeveloped capital market, bureaucracy, low need of innovations. A number of demography and health care indicators were also mentioned (Russia is at the bottom by the ratio of elderly and of employable population, by the quality of life and by the level of health care).

Global Innovation Index

In the rating of the world's most innovative states (which is compiled by the Bloomberg) Russia took the 14th place, having outstripped Canada, the UK, Australia and many other states. Totally 50 countries were included in the Global Innovation Index where information on 200 states and sovereign territories was analyzed. Analysts considered the following seven factors: R&D intensity, productivity, high-tech density, researcher concentration, manufacturing capability, tertiary efficiency and patent activity. The information was provided by the World Bank, the World Intellectual Property Organization, the Conference Board organization, the Organization for Economic Cooperation and Development and UNESCO.

comScore

According to the comScore report, Russia possesses the largest Internet audience among the European states and takes the third place by indicator of web page viewing from mobile phones (by the share of page views from all types of mobile devices).

IDI («ICT Development Index»)

Following the results of 2011, Russia moved up by 2 places in the ICT Development Index and took the 38th place, having closely approached to Portugal that occupies the row above.

The Web Index

According to The Web Index report 2012 (compiled by the World Wide Web Foundation organization), Russia took the 31st place by the level of the Internet development and usage. Every year Russia steadily improves its positions in this rating. Following factors prevent Russia from making a greater progress: low level of use of social networks and of the global network for health care information availability, low level of e-learning services, high level of cyber-crime and quite a low level of e-commerce development.

Networked Readiness Index

According to the annual report published by the World Economic Forum and INSEAD business school, Russia moved up by two places in the Networked Readiness Index 2013 (having overtaken China and other BRICS countries) and took the 54th place. To be noted that in 2010 Russia was on the 80th place only. This year the improvement of the Russia' position is mainly explained by an increase in the number of Internet users and especially by an exponential growth of 3G-connections (the 20th place in the world).

National Cloud Computing Policy

Following the results of the analytical research on changes of different countries' national policy in the sphere of cloud computing which was conducted by the Business Software Alliance (BSA) Russia took the 14th place among 24 world's leading IT economies (a year ago Russia was on the 16th place). The global rating is headed by Japan thanks to adoption of the complex legislative initiatives to support e-commerce. Australia is on the second place, and the third place this year belongs to the USA which have moved Germany to the fourth position. BSA made an assessment of the national legislation and regulatory acts by seven different parameters that are critically important for development of globally integrated market of cloud computing.

Innovation Cities Global Index 2012-2013

In the rating of the world's most innovative cities Moscow took the 74th place and St. Petersburg – the 84th place. Only 133 cities have been ranked there among 445 cities which participated in the rating. Except two Russian capitals the following Russian cities also participated there: Yekaterinburg, Kazan, Novosibirsk, Samara, Krasnoyarsk, Kaliningrad, Rostov-on-Don, Nizhny Novgorod, Perm, Saratov, Tomsk, Vladivostok, Omsk, Volgograd, Izhevsk, Barnaul, Orenburg, and Togliatti.

The Top 100 Outsourcing Cities

The ranking of cities pretending to be the best destinations for the software development outsourcing (organized by Global Services) included four Russian cities. All of them were present in this listing a year ago. Only Moscow conceded its position and dropped from the 46th to the 56th place. St. Petersburg moved up from the 33rd to the 32nd place, Nizhny Novgorod – from the 63rd to the 62nd place, Novosibirsk – from the 97th to the 92nd place.

Achievements of individual Russian companies in the world ratings

Many large Russian software vendors still do not aspire to appear in various ratings created by the 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 their country. Besides, software vendors sometimes do not wish to demonstrate their Russian origin as they position themselves at the corresponding markets as local residents (in order to use the status of these countries' national manufacturers). There are also some fears that the Russian affiliation may prevent from their successful operations in some foreign markets due to the politically prejudiced attitude towards Russia (mostly, in Europe and the USA).

Due to these reasons, the representation of Russian companies in a number of software vendor ratings is much lower than it can be expected in the present context. However, Russian vendors are gradually becoming more open, and their representation is growing even in those ratings for which the turnover data has to be disclosed

The Russian service companies have a very different attitude towards the participation in the international ratings. Among the most well-known ratings, we can note two versions of the Top-100 world's outsourcing providers: 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 very close to the maximum extent possible, still it may be even more increased due to the progress in other Russian companies' transparency and PR activity. Totally 10 Russian service providers have been included at least once in the Top-100 outsourcing companies according to Global Services and IAOP for last five years.

This year, the IAOP rating did not include such provider as MERA from Nizhny Novgorod, which decided not to participate in the 2012 rating in order to be included

into a higher category ("global") next year. It would be also logical to see in this rating next year ICL-KME CS (based in Kazan) which is rapidly developing and has the staff number over 1200 people.

In recent years, the share of Russian companies in these ratings has kept at the level of 5-8%. We need to keep in mind that apart from the IT-service providers both ratings also include leading BPO service providers. Excluding such companies from the ratings above, the proportion of Russian IT-companies will be higher than 10%. And summing up all achievements of Russian, Ukrainian, and Belorussian IT-service providers in these ratings, the total share of service companies from the Russian-speaking industry of the former USSR among the top world's IT service providers will be over 15%.

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, which allows for judging the most important strengths of the Russian software developers. The companies with their main development centers in Russia are considered to be among the leaders in the following areas: Product Engineering, Software/Hardware, Information and Communication Technology Services, Entertainment & Media, Automotive, Financial Services, Health Care, Government and Industry-Specific Services.

Global Services and IAOP separately determine the best service providers by figures that reflect their size (staff number, consolidated revenues, number of development centers). A few Russian companies are included into the corresponding additional ratings. They are also on the first positions among IT service providers from the Eastern and Central Europe (almost all largest East European companies are concentrated in Russia, Belarus, and Ukraine).

Only Luxoft and EPAM Systems are noted by analysts as the "global" companies, but they are still considered to be medium-sized enterprises by the global standards. Although it is noted that they are growing very quickly. Another candidate for a place among the global providers is MERA. The growth of the company' staff size to 2000 employees allows it to anticipate the achievement of this purpose following the results of 2013.

The 2012 Global Services 100

The last published rating of the top-100 outsourcing companies according to the Global Services appeared in the summer of 2012. The new version (following the results of 2012) was not ready by the time of this research report preparation. A year ago, the 2012 Global Services 100 list included 7 companies from Russia: Auriga, DataArt, EPAM Systems, First Line Software, Luxoft, MERA, and Reksoft.

In the Global Services 100 rating, there were five companies from Ukraine and Belarus as well: IBA Group, SaM Solutions, SoftServe, Intetics, and Itransition. All three countries are culturally and economically close, so we can quite reasonably mention the so-called «Russian-speaking community» of the IT-service providers. The strengths of the companies from these three States are approximately identical. First of all, they have high quality education in the field of physical and mathematical sciences, exclusive creativity of personnel and experience in performing complex projects.

The 2013 Global Outsourcing 100

The IAOP experts, among whom there are representatives of General Electric, Sprint, Thomson Reuters, WMS Gaming and of leading US business schools, selected the winners by a number of criteria, such as the turnover growth and the company staff size, the positive customers' feedback, company's top management experience, and others.

Like in 2012, IAOP included 6 companies representing Russia in the Top-100 in 2013. They are: Artezio, Auriga, EPAM Systems, First Line Software, Luxoft, Reksoft. Two years ago there were 5 such companies and

three years ago there were only 3. According to experts, the increase in the number of companies in this rating confirms that Russian service providers successfully added understanding of market and their ability to do business to existing highest technological level of Russian engineers.

This year there is one more Russian company (MERA) among the best in one of the separate nominations of IAOP. Thus, 7 representatives of Russia were included into The 2013 Global Outsourcing 100. Telecontact may be considered as the eighth, but it was only noted as a «rising star» of Russia. Besides, this company is oriented towards the Russian market and to the market of the nearing countries – Ukraine, Belarus, and Kazakhstan.

It is to note that there are less Russian companies in The Global Outsourcing 100 than in The Global Services 100. It is explained by the fact that IAOP covers with its rating a larger range of outsourcing application areas (including BPO sector, where Russian export companies are not represented abroad).

Except Russia, neighboring Ukraine and Belarus (with IBA Group, Intetics, Itransition, Oxagile, TEAM International, Miratech, as well as with SaM Solutions, Softjourn and SoftServe which were listed in separate nominations) are also represented in the IAOP global rating. Some of mentioned companies have their headquarters in other countries but their main development centers are located in Belarus or Ukraine.

PwC Global 100 Software Leaders

According to PwC, Kaspersky Lab with its turnover of $615 million took the 57th place in the top-100 software companies (following the results of 2011). This company takes the 12th place in the EMEA region and the second place in the emerging markets (Emerging Markets 100), being slightly behind the Brazilian TOTVS.

In the EMEA region, 1C was also included in the top-100 (it took the 30th place with

09. Representation of Russian companies among the best ones in various sub-nominations of IAOP

Nomination	Company name
Top ten	
Leaders in Revenue Growth	EPAM Systems
Rising Stars in Revenue Growth	First Line Software
Rising Stars in Employee Growth	Artezio, First Line Software
Rising Stars in No. of Centers Worldwide	Artezio
Leaders – Entertainment & Media	EPAM Systems, MERA
Rising Stars – Retail & Consumer Goods	Artezio
Rising Stars – Financial Services (Banking, Markets)	Artezio, Reksoft
Rising Stars – Health Care	Auriga
Rising Stars – Telecommunications	Reksoft
Rising Stars – Information/Comm. Technology Services	Reksoft, Artezio
Top twenty	
Leaders – Technology (Hardware & Software)	EPAM Systems, Luxoft
Leaders – Telecommunications	Luxoft
Rising Stars – Technology (Hardware & Software)	Auriga
Companies – Government (all levels)	First Line Software, Reksoft
Companies – Financial Services (Insurance)	Exigen Services
Leaders – Industry-Specific Services	Luxoft
Leaders – Information/ Comm. Technology Services	EPAM Systems, Luxoft
Companies– Research & Development Services	Artezio, Auriga, First Line Software, Luxoft

the turnover of $360 million). In the Emerging Markets 100, there appeared three more Russian companies apart from Kaspersky Lab and 1C (8th place) – Dr. Web (42nd place, $38 million), ABBYY (51st place, $31 million), and Positive Technologies (68th place, $25 million).

Deloitte Technology Fast 500 EMEA

According to Deloitte, among 500 most fast-growing high-technology companies in the EMEA region we can usually see companies that are not the largest software exporters. An exception is Kaspersky Lab, which a year ago took the 185th place by revenue growth indicator for the last 5 years. Many other Russian software exporters promptly increased their income for the last 5 years, but they did not try to enter the Deloitte rating.

In the last version of this rating, there are three Russian companies: ER-Telecom (136th place), Service Plus (239th place), and STEC.COM (462nd place).

Software 500

In the recent years, only two Russian software developers were present in this rating: following the results of 2011 Luxoft took the 188th place with the turnover of $206.2 million, and Artezio – the 462nd place. EPAM Systems, which also represents Russia (based on the location of its largest development centers there), took the 181st place in the Software 500.

This year, Luxoft and EPAM Systems improved their positions in the Software 500 rating (they occupied the 186th and the 160th place, respectively). Artezio slightly fell back (466th place). In addition to them, this year other Russian companies were also included in the rating: PROGNOZ (292nd place) and DataArt (403rd place).

FinTech 100

In 2010 and in 2011, only one Russian company (Luxoft) was included in the FinTech 100 (the rating of the global leading providers of technologies and services for the financial industry). This year it took the 68th place, and Diasoft appeared in this rating on the 88th place.

Magic Quadrants of Gartner

The Gartner Group analytical agency ratings are among the most prestigious ratings for software vendors. This agency year over year publishes so-called Magic Quadrants of Gartner, which include products and companies that are among the leaders in certain software segments. Since 2012, three new players were unexpectedly added to the Russian software leaders who are traditionally present in their «quadrants» (Kaspersky Lab, ABBYY and some others). These companies are PROGNOZ from Perm (in the Business Intelligence), Diasoft (in the Core Banking Software), and InfoWatch (in the new Data Loss Prevention quadrant), both from Moscow.

In the Summer of 2013, Gartner included Kaspersky Lab in the «magic quadrant» which comprises global vendors of mobile device management solutions (Mobile Device Management – MDM).

Besides, according to Gartner experts, a small Moscow company IntelTech with their products in the field of Big Data analysis took the lead in the 2012 Cool Vendors list.

Other Achievements of Russian Software Developers

The European Outsourcing Association recognized Luxoft as the Outsourcing Company of 2011, and also gave it the IT Outsourcing Project of the Year award.

In 2013, Forbes business magazine put EPAM Systems at the 6th position among the most quickly growing American technological companies (the EPAM Systems headquarters is located in the USA).

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

At the end of 2012, the Russian developer of speech technologies (Speech Technology

Center) was first awarded with the Speech Industry Award, which are annually conferred to the main players of the global speech technology market for their achievements. Earlier, Speech Technology Center (STC) became the first Russian company to be honored with an award for their technological achievements by the Technology Marketing Corporation (TMC), one of the largest media North American holdings oriented towards the market of telecommunications and CRM.

According to the American INTERNET TELEPHONY periodical, VideoMost (videoconferencing tools produced by SPIRIT Group) became the Product of 2012. SPIRIT software products are integrated in various telecommunication devices and systems. Over 1 billion people in more than 100 countries use their software globally on a daily basis.

By Gartner estimates, Kaspersky Lab comes the third in the world in the consumer internet security space and the first in the US antivirus software retail market.

In April 2013, two Russian companies – Softkey and Next Media Group – were included in the top-100 innovative and technological Internet projects according to Red Herring, one of the largest media holdings.

In September 2012, a Russian company first appeared in the IDC Security & Vulnerability Management rating among the top-10 by revenue size. It was Positive Technologies, which occupied 2% of the segment of IT system vulnerability assessment software with the income from operation in this segment of over $16 million.

A team of developers (from a small city called Ulyanovsk) who developed Ecwid, a shop for social networks, forced out of Facebook its US competitor, Payvment. Payvment will transfer to Ecwid its user base – then Ecwid will become the absolute leader among the Facebook shop designers.

Russian IT Market in 2012

Last year, the volume of the Russian information and communication technology market (ICT market) increased by only 1.2%. The information technology market grew slightly more – approximately by 4% according to IDC and by 7% according to the Ministry of Telecom and Mass Communications of the Russian Federation.

Against a rapid (by tens of percent) increase in the ICT market during the period after the crisis of 2009, the market actually showed a zero growth in 2012.

A year ago, experts expected the growth of the Russian ICT market to reduce, but not in such degree. The IDC analysts see two main reasons for the deceleration: the decrease in the Russian economy growth rates and the reduction of IT costs caused by the fact that companies, coming through trials of that crisis, tend to spend money for various projects more reasonably demanding sound justifications of all costs. The ICT Russian market saturation in some of its separate large segments should be added to these two factors.

Another factor that is worth mentioning is development and expansion of modern cloud and telecom technologies which provide new instruments to cut communication and IT costs. The services of commercial data centers allow to upgrade available computing capacities without purchasing new servers, and the IP telephony ousted more expensive traditional voice communication.

Considering the entire ICT market, the main reason for the slowdown of its growth is the saturation in a number of its significant segments. Now, it is no longer possible to increase the volume of cellular communication operators' services and mobile phone sales at the expense of new subscribers as almost all Russians (over 91% of the entire population, including children) already use mobile communications. Last year, mobile phones were generally purchased to replace existing old devices. Replacement of traditional mobile phones (mainly used for voice communication) by smart phones was underway. The average price of a sold mobile phone significantly increased, which means that in this case Russian economy deceleration had no great impact on the market growth indicators.

The same holds true for the market of personal computers, which now can be seen almost in each house and on each workplace. The relatively small growth that still remains in this segment is supported by replacement of desktops with laptops. Apparently, the desktop computer market in Russia, as well as around the world, will be steadily reduced.

Considering the level of economically developed countries, the Russian ICT market

is not mature yet, although some signs of its maturation are already visible and the gap is quickly closing. In the sphere of telecommunication services the only lags behind the Western World exist for the share of smart phones in the total number of mobile communication devices, and also for the share of mobile Internet users in the total number of Internet users.

Due to the size of the country and to the rapid growth in recent years, the Russian Internet sector became one of the largest in Europe and will probably become the largest soon. About a year ago, Russia took 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 Russia there are 3.6% of all Internet users in the world, but herein less than 2% of all globe population lives in the country. By the number of broadband Internet users our position is not much worse – 6th and 7th place in the world (according to J'son & Partners Consulting and to Broadband-Forum.org, respectively).

By the average data downloading speed, which does not depend on country size, in 2011 Russia took 16th place among 224 countries of the world (according to Pando Networks). The Internet access rate in the Russian regions grew 4.4 times over the past year (according to a number of tariff plans).

By Internet connectivity, Moscow and St. Petersburg already match the level of the cutting-edge countries (over 80% of households are covered by the Internet) while other regions will reach this level in several years.

According to the Ipsos analytical company survey (which was conducted on demand of Reuters) – Russians are the world leaders among the VoIP technology users (36% of respondents used it at least once over the last three months).

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

It can be assumed that the increase in the Russian IT market in 2013 should be a little greater than in 2012. IDC predicts its increase on the average by 8% per year in the next five years. Various companies' experts anticipate more important growth rates in the following segments:

10. Basic figures characterizing the Russian ICT market in 2012

Indicator	2012	Drop (-)/ Growth (+) following the results of 2012	Source
Russian ICT market	$69 billion*	+1,2%	IDC
Russian IT market	$33 billion*	+3.9%	IDC
	700 billion rubles	+7%	Ministry of Telecom and Mass Communications
Income from communication services	1.53 trillion rubles	+5.2%	Rosstat
Mobile communication market	679.2 billion rubles	+5.6%	Rosstat

* preliminary data

11. Structure of the Russian IT market (results of 2012)

IT services	19%
Software	14%
PCs	24%
Mobile phones	16%
Telecommunication and network equipment	11%
Other equipment	16%

Source: IDC

12. Major segments of the Russian IT market

Indicator	2012	Drop (-)/Growth (+) following the results of 2012	Source
Russian motor vehicle navigation market (systems, solutions, equipment, services)	15 billion rubles	+25%	NP GLONASS
Russian mobile application market	$160 million	+256%	J'son & Partners Consulting
Smart phones	11.2 million pieces	+29%	IDC
Tablet computers		+256.7%	Euroset Company
		+289.5%	IDC
	3.89 million pieces ($1.77 billion)	+344% (+278%)	ITResearch
Netbooks		-17%	ITResearch
Portable electronics	88.6 million devices (484.8 billion rubles)	+16.7% (+20.5%)	Euroset Company
Mobile computers		- 5% (in monetary terms)	Euroset Company
Smart phones		+69% in pieces (+60% in monetary terms)	Euroset Company
		+41.3%	IDC
E-book devices		+ over 100%	Euroset Company
Professional data panels	$125.5 million (33.3 thousand units)	+15%	ITResearch
Video conferencing	$96 million	+20%	TrueConf
Laptop computers	9.5 million units	+13%	IDC
	9.37 million units		ITResearch
Desktop computers	4.66 million units	-7.5%	ITResearch
	4.16 million units	+1.7%	Gartner
Total revenue of the external DSS vendors	$152 million	+22.9%	IDC
Infrastructure software		+13%	IDC
Printers, copiers, and multifunctional devices	4.2 million units ($1 billion)	+0.1% (9.2% in monetary terms)	IDC
Monitors	5.07 million units ($870 million)	-10% (-15.5%)	ITResearch
Servers		+9.2%	IDC
IT services (system integration, consulting, etc.)	$6.3 billion	+8.4%	IDC
Software	$3.4 billion	+10%*	IDC

* preliminary data

13. Use of Internet technologies in Russia in 2012

Indicator	Time	Absolute value	Indicator change	Penetration indicator	Source
Runet mobile audience	September-October, 2012	35 million subscribers	+51%		WapStart and Openstat
Wireless Internet connectivity	End of 2012	40 million active subscribers (65.5 million subscribers by number of SIM cards)		83% (of all Internet users)	J'son & Partners Consulting
Active mobile Internet connection subscriber base of smart phone users	End of 2012	22.5 million subscribers	+88%		J'son & Partners Consulting
Average mobile data transmission traffic per smart phone owner	2012	303 MB/month	+150%		J'son & Partners Consulting
Internet audience scope	End of 2012	61.3 million subscribers	+15%		comScore
Broadband Internet access services	End of 2012		+13.5-14%		AC&M-Consulting
Monthly Internet audience in Russia	Autumn 2012	61.2 million people 18+ (about 47 million people daily)	+12%	52%	According to the Obshchestvennoye Mneniye Fund

smart phones, mobile applications, mobile Internet access, software, cloud technologies, navigation equipment and navigation services.

The Russian software market grew by 10% in 2012 (the sales of information security solutions increased even more). In the next years, the cumulative sales of software companies will most likely grow at least by 10% per year. In particular J'son & Partners Consulting experts expect a rapid growth of the mobile application market. By 2016, it will increase 8 fold and will reach $1.3 billion.

The ratio between smart phones and traditional mobile phones sold in Russia is still not in favor of smart phones. In the first quarter of 2013 their share was 40%. For the first three months of this year this indicator in the world market exceeded 50%. However, in Russia, the smart phone sales volume is growing faster. Therefore, it can be assumed that this year this ratio for the world and for Russian markets will be identical. According to the Euroset the sales of smart phones in Russia in the first quarter of 2013 increased by 34%, and the sales of traditional mobile phones reduced by 24% (in comparison with the same period of the previous year).

The sales of smart phones will be promoted by the launch of 4G networks (LTE). In this sphere, Russia's lag behind the economically developed countries is not really great. According to

14. Russian market of cellular communication and of mobile phones

Indicator	Time	Absolute value	Change	Source	Source
Share of sales of the LTE technology supporting subscriber devices	By the results of 2012	0.6%		J'son & Partners Consulting	WapStart and Openstat
Mobile video market	By the results of 2012	$65 million	+160%	J'son & Partners Consulting	J'son & Partners Consulting
Market of mobile phones (including smart phones)	By the results of 2012	42 million units (199.1 billion rubles)	+5.8% (+14.4%)	Euroset Company	J'son & Partners Consulting
	By the results of 2012	40 million units (95 billion rubles)	+5% (+18%)	Svyaznoy company	J'son & Partners Consulting
	By the results of 2012		+5% (15-17%)	MTS retail network	comScore
Mobile phone availability	March, 2012	91% of population	+13.5-14%	Public Opinion Foundation	AC&M-Consulting
Netbook or laptop availability	March, 2012	28% of population	+12%	Public Opinion Foundation	According to the Obshchestvennoye Mneniye Fund
Smart phone availability	March, 2012	11% of population		Public Opinion Foundation	
Tablet computer availability	March, 2012	7% of population		Public Opinion Foundation	

J'son & Partners Consulting, in 2012 the share of sales of the subscriber devices that support the LTE technology in Russia comparing with the global sales was only 0.6%, but by 2015 it will increase up to 2%.

The volume of the Russian mobile video market in 2012 was $65 million (according to J'son & Partners Consulting). Expectedly, it will reach the level of $344.8 million by 2015.

J'son & Partners Consulting predicts that within the next three years, the sales of tablet-computes in Russia will grow 2.3 times and in 2015 it will reach 5.8 million devices.

Last year, the volume of the Russian navigation market (the sales of systems, solutions, equipment, and services in the transport segment) was 15 billion rubles (about 0.5 billion US dollars) that is 25% more than the year before. GLONASS predicts its quadruple increase – up to 60 billion rubles ($2 billion) in 2013.

By IDC estimates, the Russian market of cloud services is growing approximately by 50% per year.

The ICT market share in Russia's GDP did not change considerably and has remained at the level of 4% in recent years.

Publications on High Technologies in Russia in Foreign Mass Media

When it does not come to political things, foreign journalists usually look with favor on Russia here and now and perceive it as a country where globally competitive solutions and technologies may appear. However, only a few years ago the situation was absolutely different. The analysis of leading mass media publications was suggesting that the article writers often thought of Russia as a huge territory with oil derricks, vodka making factories, and missile pits. Even the availability of the frightening military industrial complex, which seemed to testify the Russians' capability to solve the most challenging technological tasks, hardly influenced the extremely show-me attitude of ordinary people towards the «Made in Russia» text on a shrink-wrapped software product. Because of this, Russian software companies who wished to sell software to a wide audience of foreign consumers, avoided – by all means and whenever possible – drawing attention to the country where solutions were originated. They often operated at a foreign market on behalf of their local subsidiaries, who were selling their alleged own product without reference to Russian developers.

By 2012-2013 such secrecy faded in importance. Usage of the «Made in Russia» slogan in marketing is not unambiguously desirable yet (especially in the leading Western countries, i.e. in the markets on which Russian software companies are mainly focused) but it is not as risky as it used to be a few years ago.

That drastic change of mood happened two years ago. Then, the share of scientific and technical publications that provided relatively positive information about Russia exceeded the level of 50% and reached 66% with a significant increase in the foreign mass media interest towards the Russian hi-tech economy sector. For all the previous years (until 2011) there were approximately one and a half times more negative publications than positive ones. Last year we made a tentative prognosis that this turn was most likely natural and irreversible despite some decrease in the foreign press loyalty index (from 66% to 59%). The results of mass media monitoring for the last 12 months showed that this conclusion was correct: the number of publications that positively influenced the image of Russia considerably increased in comparison with the previous year.

15. Character of publications in foreign mass media (analysis results for two periods: from April 1, 2011 to March 31, 2012 and from April 1, 2012 to March 31, 2013)

Impact on Russia's image	Out of all publications	
	01.04.2011-31.03.2012	01.04.2012-31.03.2013
Positive	57%	70%
Negative	43%	30%

The analysis was only performed based on publications describing the hi-tech economy sector and, first of all, the software development industry. The search was performed within a number of specialized editions and in the media resources which are the most popular in the world and in separate continents. And we were hunting for two keywords only – Russia and Software. Messages and reviews not directly related to the high technologies were peeled apart. The list of monitored mass media included the following 25 resources: Asia Times, BBC, BusinessWeek, CIO Magazine, CNET, Computerworld, The Independent, eWeek (PC Week), Financial Times, Forbes, Global Services magazine, The Hindu, IT Europa, InfoWorld, InformationWeek, Linux Magazine, MacWorld, Network World, The New York Times, PC World, REUTERS, TechNewsWorld, The Washington Post, The Wall Street Journal, and ZDnet.

Due to a huge increase in the number of publications under consideration, we had to significantly reduce the search range. Moreover, there was a time offset. Earlier, we selected publications from June to July of the next year (or from May to June), but this year we changed timeframes and selected publications from April to March. In this regard, comparison with the last year's research results is not so absolutely correct. Therefore, this year we have done job twice – we recalculated the number of articles within two periods: from April 1, 2011 to March 31, 2012 and from April 1, 2012 to March 31, 2013. That is, 2011-2012 publications were analyzed repeatedly but with different search parameters. It is worthy of note that the discrepancy between the received loyalty indexes for closely resembling time periods is insignificant – 2% only (57% instead of 59%).

The result of publication content analysis for the last two years testifies that the share of articles that positively influence the image of Russia increased from 57% to 70%. Most likely, such significant increase is explained by two main reasons. The first is connected to the recently observed fact that our companies and officials finally began to provide information to foreign mass media more actively. This credit is due to the Russian export companies, government officials, sub-governmental structures, and industry associations. The second main reason is a

16. Distribution of publications negatively influencing the image of Russia, by edition type

From April, 2011 to March, 2012	From April, 2012 to March, 2013	For two years (from April, 2011 to March, 2013)			
Specialized publications	Business and general political publications	Specialized publications	Business and general political publications	Specialized publications	Business and general political publications
49%	51%	60%	40%	54%	46%

decrease in the number of events connected to technical failures, which negatively affect the country's image.

It is important to note that the total number of publications about high-tech Russia increased by 8%. The growth did not turn out to be as great as a year before (then, it was 93%) but considerable enough to be mentioned.

A few years ago there was a consistent pattern: positive publications favorable for Russian software companies' export appeared mainly in the specialized editions that were far from participation in political games. It was also the case for the mass media of countries that assumed, at least, a neutral attitude in to Russia. Now this rule does not work any longer. Moreover, when analyzing publications over the past 12 months, it became clear that for the first time negative publications appeared more often in specialized high-tech editions than in business and general political editions (60% versus 40%). Such ratio will hardly remain in the future. Nevertheless, at present it is fair to say that the distinctions that were earlier observed between specialized editions and business ones have been blurred out. The two mass media types show approximate parity by all indicators – by number of editions included in our analysis, by number of publications, by share of articles with a negative attitude towards Russia. The deviations are accidental or temporary.

All conclusions drawn above only concern those articles and reviews that refer high technologies. Publications on other subjects (for example, about political events) contain much more negative than positive that is certainly not favorable for promotion Russian software products and software development services in foreign markets. However, it is not worth overestimating the importance of negative articles. For example, China is presented in western mass media as an even more non-democratic state but it does not disturb successful promotion of Chinese goods in the US and in the European markets. Some Russian companies also take the leading positions in these markets irrespective of the content of western mass media publications about Russia. Kaspersky Lab manages to dominate not only in the US corporate' but even in the retail market. In Germany, the Russian antivirus developer steadily heads the list, after having beaten the local G-Data to the second place.

17. Rating of editions by number of publications for the period from April 1, 2012 to March 31, 2013

1	ZDnet	25
2	eWeek (PC Week)	21
3	PC World	21
4	TechNewsWorld	19
5	InfoWorld	18
6	InformationWeek	18
7	Forbes	13
8	MacWorld	11
9	BusinessWeek	10
10-11	Computerworld	8
10-11	Financial Times	8

18. Rating of editions by number of publications for the last two years (from April 1, 2011 to March 31, 2013)

1	ZDnet	44
2	PC World	44
3	eWeek (PC Week)	37
4	InfoWorld	37
5	Forbes	36
6	TechNewsWorld	26
7	The Hindu	18
8	BBC	18
9	Financial Times	17
10-11	Computerworld	15
10-11	BusinessWeek	14

19. Top-10 most loyal editions for the last 12 months (01.04.2012-31.03.2013)

		Share of positive publications about Russia	Total number of publications
1	BusinessWeek	100%	10
2	The Hindu	100%	6
4	REUTERS	100%	5
5	Financial Times	88%	8
6	Forbes	85%	13
7	MacWorld	82%	11
8	Asia Times	80%	5
9	Computerworld	75%	8
10	ZDnet	72%	25

* Only editions with at least 5 publications per year are included in the table

20. Top-4 most disloyal editions for the last 12 months (01.04.2012-31.03.2013)

		Share of negative publications about Russia	Total number of publications
1	InformationWeek	56%	18
2	PC World	48%	21
3	InfoWorld	44%	18
4	TechNewsWorld	42%	19

* Only editions with no less than 5 publications per year are included in the table

21. Top-5 most disloyal editions for the last two years (from April 1, 2011 to March 31, 2013)

		Share of negative publications about Russia	Total number of publications
1	InformationWeek	61%	28
2	InfoWorld	51%	37
3	Network World	50%	10
4	TechNewsWorld	50%	26
5	PC World	48%	44

* Only editions with no less than 8 publications for the last two years are included in the table.

In Spring 2013 IDC awarded Kaspersky Lab with the title “leader” in the Endpoint Security protection solutions for large business, following results of the comparative analysis of vendors in the West European market.

Apparently, western consumers are pragmatic and mostly evaluate quality and price instead of an exporting country’s «democratic character» and «friendliness» in the mass media coverage. In the USA, after the one more exacerbation of relations with China, attempts

22. Top-10 most loyal editions for the last two years (from April 1, 2011 to March 31, 2013)

		Share of negative publications about Russia	Total number of publications
1	The Hindu	89%	18
2	REUTERS	89%	9
3	MacWorld	85%	13
4	Forbes	83%	36
5	BusinessWeek	79%	14
6	Financial Times	76%	17
7	Computerworld	67%	15
8	eWeek (PC Week)	65%	37
9	ZDnet	61%	44
10	BBC	61%	18

* Only editions with no less than 8 publications for the last two years are included in the table.

to launch Chinese goods boycott campaigns are periodically made but, as a rule, they turn out to be unsuccessful. Thus articles that show possibilities of creating quality hi-tech solutions in Russia are more important for promotion of the Russian products and services than negative publications about the political situation.

At the end of 2012 Wired (US edition) put Evgeny Kaspersky on the eighth place in the list of the most dangerous people in the world. The resource explained its choice by participation of Kaspersky Lab (Evgeny Kaspersky is the founder and the head of the company) in neutralization of virus attacks against the Middle Eastern countries. It is unlikely that even such invective may negatively affect the Kaspersky Lab positions in the US market. Moreover other US mass media did not support Wired.

Editions whose content we have analyzed in this research considerably differ from each other by their attitude towards Russia. The greatest attention to the Russian hi-tech sector was paid by ZDnet, eWeek, and PC World. Following results of the last 12 months BusinessWeek, The Hindu, and REUTERS can be considered as the most loyal editions. InformationWeek, PC World, and InfoWorld were the most disloyal ones. It is remarkable that editions that publish the most negative materials about technological Russia have a very small number of publications. Most likely, it reflects the fact that their warped conceptions are connected to a lack of information about Russia. More active work with such editions may considerably improve the situation with their negative publications. Such work can be carried out, for example, in lending the state support to the international marketing activity of Russian hi-tech companies. However, individual companies can also improve the situation by working more closely with the most disloyal editions.

The majority of publications about Russian high-tech in foreign mass media were connected to the information security. At the same time, the share of this subject continues to increase in the last three years. Thus foreign readers may begin to think that other IT directions are neglected in Russia – although it is not true. However, similar distortion is natural. Firstly, it is explained by the fact that the mass media pay special attention to information security (to threats and revealed vulnerabilities). Secondly, Russian companies

23. Publications by subject area

	Share for the period from April 1, 2012 to March 31, 2013	Growth (+)/reduction (-) of the number of publications
Investment attraction, merges and takeovers, cooperation	4%	-44%
Space	4%	-65%
Conditions for hi-tech business in Russia	2%	-69%
Activities of Russian developers and scientists	16%	+21%
Information security	70%	+35%
GLONASS	1%	+50%
Other	3%	

24. Russian companies most mentioned in foreign mass media publications for the period from April 1, 2012 to March 31, 2013 (the number of publications with reference)

1	Dr. Web	52
2	Kaspersky Lab	35
3	Yandex	12
4	Group-IB	6
5	Positive Technologies	4
6	Parallels	4
7	ElcomSoft	3
8	i-Free	2
9	Pirate Pay	2
10	Yota	2
11	Elbrus Technologies	2
12	Luxoft	2
13	VKontakte	2

that are engaged in information security matters more actively communicate with foreign journalists than others. Thirdly, the western mass media still consider Russia (along with China) to be the largest source of cyber threats (which reflects an artificially created enemy image rather than the real situation). However the share of publications about the Russian cyber threat significantly reduced over the last 12 months. From now foreign mass media are frightening their citizens with the Russian bugbear far less frequently.

Dr. Web was most mentioned in the foreign mass media for the last 12 months. Most likely this company's leadership is temporary. The leadership is connected to the fact that Dr. Web experts managed to identify vulnerabilities in the globally popular software, and this fact raised the interest of the world mass media to the company and to its experts. Almost all articles that mentioned Dr Web were published within 2-3 months.

The second place of Kaspersky Lab (the largest Russian software product exporter) is more natural as the reference to the company was caused by several events – as well as journalists' resort to its expert estimations. This company was among the leaders in this rating in prior years as well, and we can surely look forward to new publications about it in the future.

The third place of Yandex is connected to their recent IPO that increased foreign mass media interest towards this company. Other Internet companies are mentioned much less often (f.ex. Mail.Ru, X-Cart, OZON, and Odnoklassniki – just once each). Totally foreign journalists noted 20 Russian companies, some of which are mainly oriented towards the Russian market.

CHAPTER 2

VOLUME AND STRUCTURE OF RUSSIAN SOFTWARE EXPORT

This year, we verified our previous estimations on the Russian software export and made some adjustments. The matter is that when we started our research in 2004 there were no reliable data on the sales volumes of both software and software development services (within Russia and for export). We selected groups of known companies which represented different segments of the industry (providing IT services, selling proprietary software, offering services for creating and managing R&D centers) and extrapolated data which was obtained by the polling of these companies to the whole industry. The extrapolation was made for each segment depending on the assessment of share sizes which was prepared by known experts from companies in each segment.

Further we verified the input against the previous year's export volume multiplied by the estimated value of export growth (received based on respondents' answers). In case of marginal differences (less than 10%) we took the extrapolation result as this year's official volume of software and software development services export. As a quite representative sample (100-150 companies) was used we could objectively assume that the results of measurements and calculations were quite realistic.

However, after 10 years of surveys such technique could lead to essential deviations because of the existing error. This error is not critical as the main research objective is the identification of trends (in particular, export growth acceleration or deceleration, in general and by separate types) as well as assessment of the total amount of Russian software export). There is a strong possibility that the real value deviation was less than 10-15%. However, it is necessary to revise the calculation procedure periodically so that this deviation would not exceed the allowable value.

Another important stimulus for adjusting the estimation technique was the fact that for the last 10 years the pyramid of the software development industry was completely constructed and by now it precisely reflects the 80:20 law (when 20% of the total number of market players produce 80% of sales volume).

Considering these two factors, this year's calculation of the total export volume was verified through comparing it to the direct addition of the export volume data of all largest Russian software developers that sale their services and products abroad. Performing of such an addition is a nontrivial task as the majority of the software export companies (especially software vendors and foreign corporations' R&D centers in Russia) historically do not tend to disclose their financial data. A lot of companies even made a secret out of their consolidated revenues, not to mention the income related to sales in foreign markets.

However, Russian software companies and foreign corporations' software development centers eventually disclose some data on their sales volumes or on the number of staff (sometimes, under the nondisclosure condition) that allows correcting the previous calculations. For example, some of them provide information to Russian and foreign compilers of software and hi-tech company ratings that allows us to obtain source information, which is vital for validation of our calculations.

If a company conceals its turnover, it can be assessed based on the information on the number of the company's employees. By this indicator and considering the company's unique features (its specialization, state and size of office premises, types of solutions and services, contracts signed and investments made) the company's approximate consolidated revenues can be determined. On the official websites (including those in English), some companies place enough data to get an idea of their turnover and export income, as well as to estimate their dynamics within the year. Thus, we obtained information (additional or basic one) about 50-60 largest Russian software exporters which provided about 80% of export.

Small developers' export was calculated by extrapolation according to available data from the respondent companies (there were more than 100 small companies in the total sample) taking into account their share in the total number of such companies in Russia. It is supposed that about one and a half thousand Russian companies are software exporters (i.e. the companies that have at least 1% of their income from sales outside Russia, for example, in Belarus or Ukraine). In the RUSSOFT database there are about 1400 companies that are mainly exporters. However, this database requires regular replenishment taking into account a big number of newly born startups for the last 2-3 years (over 100 apart from Internet companies).

According to our assessment, at least 2300 software companies actually operate in Russia. Very probably there are considerably more such companies (by several hundreds) in reality. In this case (as well as in other cases when we did not have enough actual information) the most conservative estimates were used in our calculations. Therefore, any overestimation of cumulative software export which is following the results of our research is improbable. Most likely there is a small underestimation.

As a revision of the estimation procedure was done this year, we should remind the content of the basic concepts used in the research:

- under the volume export we consider all Russian software companies' cumulative income that is gained in foreign markets (including the markets of the near-abroad countries, even if many software developers do not consider sales in the CIS as export);
- Russian companies with the main development centers situated in Russia which gain the major portion of added value thanks to their own software development are considered as Russian software companies;
- final products of some companies can also be hardware (terminals, simulators, special recorders, etc.) but their basis functionality is being assured up by their own software.

Collection of information on the turnover and the export volume of 60 leading software companies was made by the results of 2012,

25. Software export volume in 2002–2014, $ billion

2002	2003	2004	2005	2006	2007
345	0,53 +55%	0,74 +39%	0,95 +28%	1,41 +49%	2,15 +52%

2008	2009	2010	2011	2012	2013*	2014*
2,6 +21%	2,75 +5%	3,3 +20%	4,0 +22%	4,6 +15%	5,4 +16%	6,2 +16%

* forecast

and comparison with the previous research results – according to the information of 2011, which was calculated based on the data of 2012 and the index of export volume growth in 2012.

The revision of the calculation procedure did not lead to any essential correction of the indicators of aggregate software and software development services export. It became clear that in 2011 software development services export was slightly overestimated. It was not $2 billion but $1.9 billion. The corresponding indicators for software products were revised upwards – from $1.6 billion to $1.7 billion. The volume of exported services of foreign corporations' R&D centers seems to be the same or a little bit higher. Cumulatively there was an increase in the total amount of Russian software export by $30-$50 million that is comparable with the error of measurement.

Following the results of 2012, Russian software sales reached $4.6 billion that is nearly 15% more than the year before. The level of $5 billion was not exceeded, while according to the last year's forecasts the export index would have expected to reach $5.1 billion with 26% growth. The calculations were performed on the basis of respondent companies' expectations at the beginning of 2012, but the world market recession affected implementation of the export income growth forecasts.

The growth rate of the software development services export in 2013-2014 remains most likely at the level of 2012. According to forecasts, the share of software products and of foreign corporations' development centers' services will be still growing, while the export of licensed software will grow the fastest.

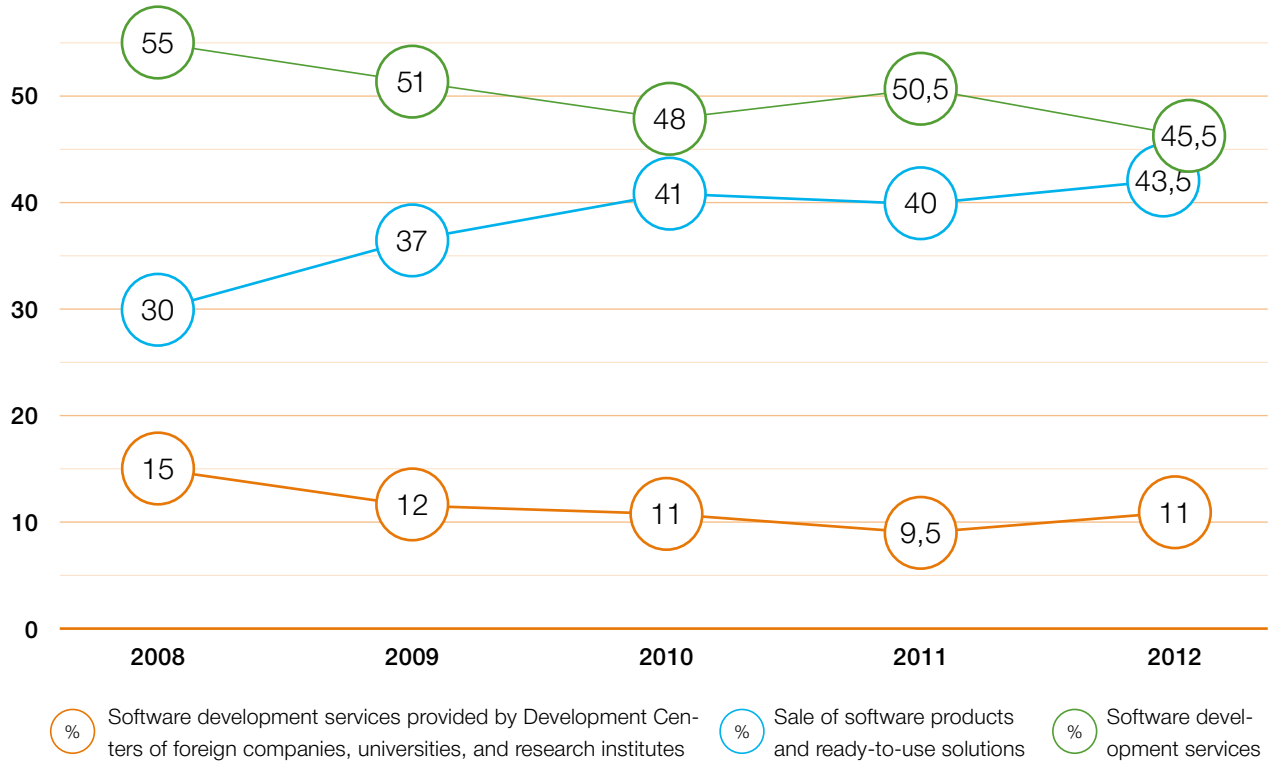
In the current conditions the return to the growth rates of 40–50%, which were observed earlier at the low initial base, is improbable. Nevertheless, the industry still has a potential for growth in the next several years at the level of 20–25% (with a possible small acceleration up to 30% in some years) in case the world economy will recover. Thus, an increase may be predicted by all export segments: software products, software development services and R&D services of foreign companies' development centers.

However, it should be noted that the current achievements were gained without significant state support. This support came into being in recent years (first of all, in form of State grants to startups and of financing to prospective R&D). It may seriously affect the export growth rates if the support to the international marketing of software companies is added.

Another important reserve of the industry's export growth is the state support in the form of elimination of administrative barriers, first, in the customs' and currency regulation, as well as in financial accounting.

The effect of this support shall not be only considered from the point of view of tax payment receipt and employment growth. 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 used by them to work in the Russian market. Upgrade of outdated sectors of traditional economy in Russia is impossible without Information Technology. It is also necessary to consider that all modern hi-tech economy sectors depend on software. More high quality developers with experience of successful global competition are in Russia, the higher are chances to create globally

26. Software export distribution according to export revenue sources



competitive solutions in any area of innovative economy.

In the previous years we witnessed a rule – more companies were focused on foreign markets, the higher the turnover growth indicators were. This year the indicators of companies with different export share in their consolidated revenues equalized. The turnover of companies mainly oriented towards the Russian market increased slightly more.

An opportunity to carry out sales in various countries ensures stable company development during economic crises. When stagnation of Russian economy is overcome, an increase in sales in the fast-growing domestic software market may be even more considerable than an increase in export.

There is an obvious effect gained as a result of granting social tax incentives to software companies (under the Federal law No. 212 FZ). Companies that take advantage of this incentive have increased their turnover by 26% and their export volume – by 16%. For companies that did not use the incentive, the corresponding indicators were 10.5% and 7% (i.e., the growth rates were approximately twice lower).

It should be noted that the export companies' turnover growth was 21.2% with an increase in their export revenue by 15%. Thus, according to IDC in 2012 the Russian software market grew only by 10%. It means that either the market growth was more than 10% (that is quite probable) or Russian companies were increasing their share in the

27. Income growth of companies with different export shares

Export share	Less than 10%	Less than 50%	Over 50%	Over 75%
Income Growth in 2011	11%	17%	34%	36%
Income Growth in 2012	28.5%	22.1%	20.6%	24.5%

28. Basic figures characterizing the Russian software industry

Cumulative turnover of Russian software companies (the share in the Russian GDP)	at least $9.5 billion.
Software export	$4.61 billion
Total size of Russian software companies' staff	at least 120 thousand people
Staff size of Russian companies' software development centers in foreign countries	20 thousand people
Total number of software developers	at least 400 thousand people
Size of the Russian software market	about $5 billion.
Number of Russian software companies	at least 2,300
Number of companies operating for export	about 1,500

domestic market at the expense of foreign competitors. Besides, the difference between the IDC and RUSSOFT estimations may be caused by the difference of techniques they apply. If IDC only considers software sales (possibly, license sales) we consider the cumulative income of software companies. The difference is essential. It is quite possible that some mismatch of indicators is explained by the combination of all above factors.

Following the results of 2012, the share of Russian software foreign sales is 0.88% of all Russian export (a year ago, there was 0.8%) which increased by 1.2% and reached $524.7 billion. The share of Russian software is not great yet, but this indicator already comes into view of the Russian government. Most likely, this share will be growing in years to come. In Moscow and St. Petersburg, the software export share in the volume of regional export is higher than the average Russia-wide value – about 2% and 5%, respectively. Here it is necessary to keep in mind that the exporters of petrol and gas, of wood and of other natural resources are often registered in the Russian capitals while resource extraction and processing is generally conducted in other regions.

Now, the software industry is quite important for the Russian economy. For comparison: the share of foodstuff is 3.1% of the total Russian export, that of chemical industry – 5.6%, that of machinery and equipment is 3.6%, that of aircraft – 0.8%, the share of cars and trucks is 0.3%, that of arms – 2.9%. The next and quite achievable target for the Russian software industry can be the volume of arms export which reached $15.2 billion by the results of 2012. However, last year there was no essential reduction of the gap to this export segment as the growth of armament export and software export was approximately the same (by 12% and 15% respectively).

It is important to note that when the software export volume is determined we do not include here the income of the Internet companies, the commercial success of which is mainly assured by software developers. Earlier, they were mostly oriented towards the Russian market and – on a second priority basis – towards the former Soviet Union market. However, for the last 2 years (particularly after the successful IPO) Yandex and Mail.Ru Group began their expansion in the foreign markets. These two companies are the largest Internet companies in Russia, but there is a great number of others that are also oriented towards the foreign audience. If, following the results of 2012, the cumulative turnover of Yandex and of Mail.Ru Group is nearly $1.6 billion (by 40-50% more than a year before), the size of the entire Russian Internet econo-

my is $16 billion (according to the data of the Russian Association for Electronic Communications) with the annual growth of about 30%. In addition, we should take into consideration that the boom of Internet companies' startups began in Russia and many of these companies are initially oriented towards the global market. Therefore, the export income from Internet services will grow.

It is not groundless to consider Internet companies as software ones, as their successful promotion in the global market is firmly connected to their own new software solutions. Therefore, their export income shall be considered as another segment of IT export in the future.

As these companies can be considered neither as standard software vendors nor as software development service providers, their export revenue shall be accounted separately. There are serious problems concerning determination of this value. First of all, it is difficult to identify the export revenue in the cumulative income if an Internet company mainly earns from the advertizing. Such advertizing may be oriented towards both the Russian audience and the audience of Internet users in the near- and far-abroad countries. Besides, it is incorrect to sum up the revenues (such as the export ones) from advertizing and e-commerce. It is more correct to identify it as an online store income not an entire turnover but only the margin which is not as great for e-commerce as for offline commerce. It is essential to decide whether we can consider the revenues that were gained by Mail.Ru Group from purchase and sale of foreign hi-tech companies' shares as the export revenue. Last year, according to the experts, these revenues were on the level of hundreds of millions of dollars.

There are a lot of methodical difficulties but some estimates still can be done if more complete information about Internet companies is available. For example, the export share can be calculated taking into account the proportion of the Russian and foreign audience. Presently, about a half of Russian-speaking Internet users are citizens of other states. Based on the available data we can assume, that the export volume of the Internet companies that use their own software, exceeds $1 billion.

This year, we calculated not only the Russian software export but also the entire turnover of the Russian software companies as well as the total number of their personnel.

The cumulative turnover reached at least $9.5 billion (it is about 0.45% of the nominal GDP of Russia). If we subtract from this volume the export income ($4.6 billion) and the Russian market income of foreign software vendors (such as Microsoft, SAP, Oracle, IBM and many others – with the total product volume of $3 billion or over a half of the Russian market size), it does not mean that we will obtain the Russian software industry's sales volume.

A considerable data mismatch is explained by the fact that the cumulative revenue of the software companies (Russian and foreign ones) from sales in Russia – from one side – and the Russian software market value determined by the analysts of IDC and of other similar companies – from the other side – are not the same. As a rule, analysts generally consider sales of licenses. However, the software companies' income may be gained not only due to sales of licenses but also due to sales of hardware that is produced on the basis of the companies' own software and of their software development services.

Besides, Russian companies' sales predominantly include – in addition to sales of their own software – sales of licenses of foreign vendors that provide platforms for development of the Russian companies' software. However, the value of this double count is not so great in comparison with the software companies' cumulative turnover (most likely it does not exceed $200-300 million). The price of using the platform makes one third – one fifth of the cost of the system that is delivered to end users.

According to our calculation, the number of personnel of all Russian software companies is at least 120 thousand employees including about 20 thousand people that work in the development centers of Russian companies abroad. To add, that according to the ANCHOR High Technologies recruiting agency, only about a quarter of Russian software developers are employed in software companies. Other developers work in various economy sectors (in Internet companies, in system integrators, in banks, in the public sector and in enterprises of all economy sectors). Totally, more than 400 thousand software developers work in Russia. It corresponds to the Microsoft data, according to which there were about 350 thousand software developers in Russia in 2010. For the last 3 years, their number could increase at least by 15-20 thousand people per year. It is interesting that according to Microsoft, at least 850 thousand of the Russians have programming skills.

Figures characterizing the Russian software industry most likely need to be adjusted, but they are quite accurate to provide a general coverage.

Software development services export

If in 2010-2011 software development services export was quickly growing in order to satisfy deferred demand for services during the crisis (the growth by 14% in 2010, and then by 22% in 2011, according to adjusted estimations)the growth rates were reduced approximately to 10%.The main reason is obvious – staff shortage and the growth of labor cost connected with it as service companies are especially dependent on these problems in comparison with software vendors. Companies that could recruit employees in other countries grew quicker. These are large companies with development centers not only in various Russian cities but also abroad.

More the company size is, the higher the export growth rate is. The largest custom software developers have the growth rate at the level of 20-30%. Individual companies (for example, ICL KME CS from Kazan) managed to increase their export by 50% but they still gain over a half of income from sales in the domestic market, and only in the recent years they began to operate in foreign markets much more actively.

The success of EPAM Systems should be particularly noted. The company, following in steps of Mail.Ru and Yandex, successfully held the initial public offering at the New-York stock exchange. EPAM Systems' preparation for the IPO forced the company to increase the turnover in 2011 that contributed an additional hundred million dollars into the service industry's total export volume. Last year, the company's foreign revenue growth rate remained at the previous year's level. At the beginning of 2012, EPAM Systems capitalization during IPO at NYSE was $490 million. In August 2013, EPAM Systems was already evaluated at $1.22 billion.

In June 2013, Luxoft held a successful IPO at the New York stock exchange. For a long time, Luxoft and EPAM Systems have been at the top of the ratings of leading Central and Eastern European service companies. During the last years Luxoft's growth rates exceeded 20% that alongside with its top international ratings was quite sufficient for initial capitalization up to $555 million (that is even greater than the EPAM Systems capitalization during its IPO in 2012).

By the time of IPO holding, Luxoft already had the extended geography of its development resources worldwide with the main development centers in Ukraine (3,000 employees), in Russia (1,000 people in Moscow and Omsk) as well as in Bulgaria, Romania, Vietnam, and even in the UK (18 centers worldwide).

Almost all largest service companies were formed before Y2000 and their number

Export volume: $2100 million.

Growth: about 10%.

29. Structure of service companies' export in 2008-2012

	Development and support of software solutions and products	Custom software development	IT outsourcing	Other
2008	9%	75.5%	4.5%	6%
2009	11%	72%	12%	3%
2010	30%	49%	15%	5%
2011	29%	64%	5%	2,00%
2012	26%	63%	10%	1%

almost did not change during the last decade. Among new market players that recently came into the world elite (in the Global Services and IAOP ratings) we can mention few players: Artezio from Moscow which showed persistently high growth rates over the years, specializing mainly in such vertical market segments as telecommunications and health care; and First Line Software from St. Petersburg with its president Nikolay Puntikov who should be noted separately as for the last 7 years he consistently led three companies to thetop-100 world's leading providers of IT services (first Star Software, then Exigen Services and now – First Line Software). We should also mention Auriga, which regularly appears in the global rating of the leading service companies for about 10 years. In 2011 Auriga was recognized as the world best engineering company in the field of IT (according to the Data Monitor) having outstripped such giants as IBM, Dell, HP, HCL, Wipro and Siemens.

As was noted above, MERA from Nizhny Novgorod did not come into the 2012 IOAP rating for tactical reasons. It is one of the largest Russian service providers that still place its labor forces (about 2,000 people) in its hometown only. In 2013, this company expects to move from the "quickly developing" category to the category of "leaders". Reksoft gained a foothold in the rating of 100 world's leading service companies; it is focused on development of large e-government projects and on providing export software development services to customers in telecom and in banking sectors. The entry into TechnoServ Group allowed Reksoft to get access to Russian projects of national scale that gives the company a chance to use its experience and the financial leverage in Russia for participation in challenging foreign tenders. A serious candidate for coming into the rating of the world's leading outsourcing companies is the ICL-KME CS from Kazan, which essentially surged in terms of promotion of its services in the market and raised its staff size up to 1200 people for the last 3 years. DataArt and Lanit-Tercom are close to entry into the rating of 100 world's leading outsourcing companies. Earlier, they were included in various world ratings and successfully developed their business (software development services for banks and for science-driven developments, respectively).

The foreign sales of relatively small and the smallest service companies (with the turnover less than $4 million) did not grow at all in 2012 (their export decreased by 0.4%). Several years ago large service companies mainly grew due to involvement of employees from smaller ones. In the last 2-3 years it became noticeable that this source ran low, and a staff growth is generally provided by university graduates and recruitment of employees in their off-shore development centers. The recruitment was especially active in Belarus and Ukraine where the cost is lower and the state support of software companies is better than in Russia.

As a rule new companies appeared as a result of a demerger of formerly well estab-

lished exporters. Judging by the fact that small companies almost do not grow, we do not expect any significant increase in the number of such companies in the next 5 years.

According to the expectations of respondents, the growth rates of export in 2013-2014 will remain at the last year's level (by 2-3 percentage points higher).However, it will be difficult to stay at this level as there are no prerequisites for a considerable increase in supply in the labor market.

The service companies' export structure almost did not change in comparison with 2011.After an increase in the share of R&D and software product development services three years ago there was stabilization, and now the share of application development is fixed at the level of 63-64%.

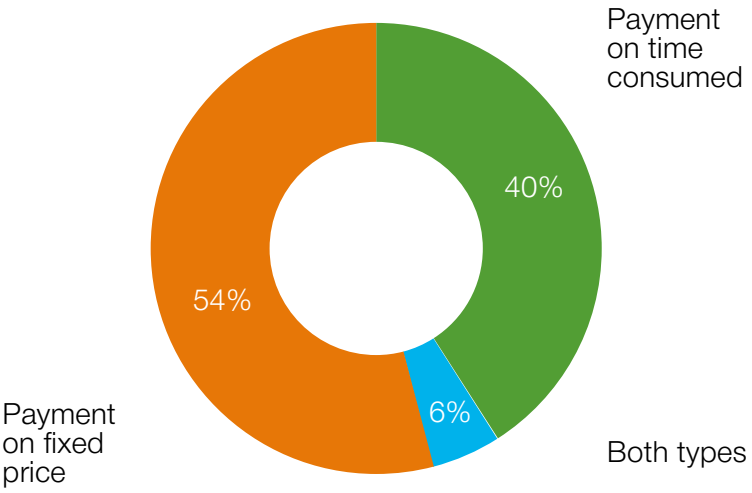
Russian service companies have a strong lead in the listing of the IT outsourcing service providers in Eastern and Central Europe, and together with companies of Belarus and Ukraine they form a so-called IT outsourcing Russian-speaking cluster which is the largest cumulative provider of IT services (software development services mostly) in Europe. Service companies still have a potential for a further increase in the export revenue, despite the current staff problems.

In the both leading IT outsourcing world ratings (Global Services and IAOP) Russian companies reinforced their standing in 2012 (names of eight Russian companies – Artezio, Auriga, DataArt, EPAM Systems, First Line Software, Luxoft, MERA and Reksoft – were mentioned in different ratings).

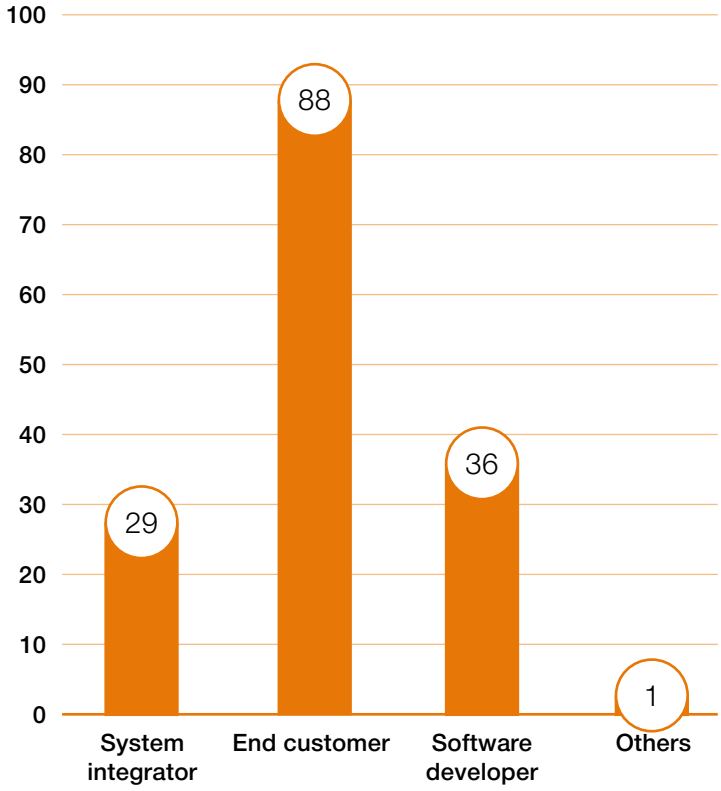
As the listed ratings estimate service companies by a number of criteria(including clients' assessment of the quality of the delivered IT services) rather than by their absolute data of turnover, we can safely state that the Russian IT outsourcing industry has gained a significant world recognition both 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.

This year, thanks to three new questions added in the survey, we managed to estimate the popularity of various customer relations models and various types of contracts, as well

30. Contract types used, % of respondent companies



31. Major customers, % of respondent companies



as to determine the major customers that are offered the respondent companies' services. All these three questions were only meant for service enterprises. As a result it became clear that services for creation of remote development centers are provided by 10% of the respondent companies. Other 90% of respondents offer their services to external customers under the contracts of both types (Time&material and Fixed price) with some advantage of the fixed price contract model (54% against 40% for the Time&material model).

The popularity of certain business models and contract types is approximately identical for large and small companies. End users are the major customers of Russian service companies (88% of respondents work with the end users of services). 36% of companies work on subcontracting, while 29% of respondents are engaged in provision of services to system integrators. Important to notice that service companies apply different business models, showing flexibility and providing their customers with the required services.

Products and ready-to-use solutions

The growth of software and of standard solution export continued in 2012 with 17% growth rate (still in 2010 it was 30%, then – 20%, and last year – 17%). Deceleration in growth is also typical for software development services. However, it only revealed itself in 2012. Thus, the reasons are absolutely different.

Staff shortage is the main roadblock for service companies. Labor force shortage also affects software vendors, but to a lesser extent because in many cases they can increase export by means of active marketing and creation of an extended sales infrastructure abroad.

The main reason of the deceleration in software export growth is a cyclical pattern of the startup creation and of their development process in Russia. New software companies were most actively created in certain time periods (for 3-4 years each period) during economic crises or just after them. A number of successful software vendors first appeared during the Soviet economy collapse. The next startup boom took place in the late 1990th and early 2000th (in 1998 there was a default and economic crisis in Russia). The third wave is connected with the world crisis of 2008, which also heavily affected the Russian economy.

Development of separate software vendors also has certain cycles. For a few first years (probably, decades) they can increase export by 30-50% per year. In occasional years the growth even may exceed 50%. However, deceleration inevitably takes place when product companies reach a certain size and their market segment saturation. In the last 2-3 years all leading Russian software vendors reached this size, while fast-growing younger companies still have not achieved such large turnovers to compensate the reduction of leaders' growth rates.

The state support of international marketing activity could significantly facilitate faster promotion of young companies' development at offshore markets, but this support is so insignificant that cannot exert noticeable influence on the volume of software product export.

There are all preconditions for an increase in software product export growth rate (or at least for retention at a rather high level of 15-20%). All recent years the Russian development of mobile applications (including computer games for mobile devices) is rapidly growing. Companies that specialize in such development are still very young and, as a rule, do not enjoy wide visibility. Nevertheless, their quantity is already so great that it makes possible holding of large-scale conferences on mobile applications and games in Russia.

Volume – $2 Billion.

Export growth – about 17%.

Such companies are practically not covered by the surveys that are carried out by the RUSSOFT Association. This may be due to the fact that many of them are startups which are being included in the Association's database of software companies with a delay of several years. Besides, the developers of Internet computer games and applications often do not position themselves as software companies and, therefore, are not included in the above base, as well.

The sphere of mobile application development is still under-explored. We can only assume that export of such applications most likely exceeds $200 million. According to the J'son & Partners Consulting experts' forecast, the Russian market of mobile applications will reach $1.3 Billion in 2016 that is 8 times greater than the similar figure of 2012. As the developers of such solutions are mostly oriented towards the global market we can assume that their export growth rates will remain approximately the same (the average figure is 60-70% per year) and probably will even speed up. Thus, mobile applications can ensure the annual gain of software export in the amount of at least $100-200 million. Now their share is 5-10% of the entire product export but it can increase considerably depending on the global demand.

Certain hopes are pinned on development of the Global Navigation Satellite System – GLONASS – applications (it is worth mentioning that the similar system in operation is only available in the USA). Thanks to the National system, Russian companies exporting terminals and applications (for ensuring monitoring of moving targets on Earth and processing of relevant information) have gained certain advantage over foreign competitors. For example, NIS GLONASS plans to get about 20% of the Indian professional navigation equipment market within 5 years; and in the long term, the company intends to capture 20–30% of the global market in this segment with the estimated current capacity of $60–$90 Billion.

In 2013 the GLONASS navigation satellite system has for the first time been considered as the one capable to pay back the huge investments and to bring a notable economic effect. However, the failures to launch rockets with communication satellites that would have allowed the system's full use in the near future, created some uncertainty concerning the perspectives of the system commercial use. Most likely, an increase in the volume of services involving traffic and cargo tracking based on the GLONASS system will remain, but it will be not as high as it could have been on condition of planned implementation of the global project on GLONASS satellite group in the redundant operation mode.

An additional gain of export may be ensured by sufficiently large Russian software companies that were previously oriented towards the Russian and CIS market. Many of them plan to work more actively in the developed and it the developing countries. Among them, there is a need to mention 1C with the turnover of about $1 billion (including income from software distribution and from merchandising). Such turnover may allow for investing not only in localization of existing solutions in other countries, but also in effective and massive marketing and sales of new products in various countries. Besides, 1C has extremely successful experience of sales organization involving partners (franchising) that can help it to move ahead successfully at foreign markets.

There are a few mid-sized companies that hold promises of promotion in foreign countries of their solutions successfully approved in the Russian market. This promotion is, in particular, supported by their inclusion in so-called Magic Quadrants of Gartner. The following software vendors appeared in the Quadrants in 2012: Diasoft ("Core Banking Software" Quadrant), PROGNOZ ("Business Intelligence") and InfoWatch ("Data Loss Prevention"). In 2012 IntelTech from Moscow headed the Gartner's "Cool Vendors list" of the most prospective companies.

Diasoft, which until recently mainly produced solutions for Russian banks, has good prospects thanks to the agreement for global

cooperation with IBM (Global Alliance Attachment) signed in 2011. This agreement provides joint development and promotion in the global markets of the Russian company's banking solutions based on the Service Oriented Architecture (SOA). As part of this agreement, IBM will provide its partner with technological expertise, with support of Diasoft projects on optimization and introduction to banking systems, will assist with implementation of marketing initiatives and worldwide promotion of the Diasoft products. The Russian company management expects that by 2015, about 30% of the company's income will be connected with the operation at international markets.

PROGNOZ is mainly engaged in developing analytical tools and decision making support systems, which derives the most part of its income from sales in Russia. In Summer of 2012 they opened its new office in Zambia. The company plans to be engaged into development of a statistical portal and applications for the African Development Bank, to create statistical portals for Mozambique, Rwanda, and Nigeria. PROGNOZ offices already operate in Beijing, Washington, Brussels, Kiev, Astana, Dubai, and Minsk.

ASCON, which dominates in the Russian market of CAD/CAM/CAPP/PDM systems tries to gain a foothold in the markets of developed countries. At the end of 2011 it opened the first representation office outside the former Soviet Union. It was established in Munich and is oriented towards the German-speaking countries – Germany, Austria, and Switzerland. The company's management set a task to open the similar offices in all continents in the next 10 years.

The Qiwi processing company began its operation in the USA with delivery of a pilot batch of 100 payment terminals with a purpose to define its specific development plans in the US market.

In the autumn of 2011, Rosoboronexport and Russian Telecom Equipment (which are a part of the Russian Technologies State Corporation) announced the beginning of their cooperation in the field of international market promotion of integrated automated security management systems. The most promising regions for the system promotion are thought to be Latin American countries (Argentina, Brazil, Venezuela, Peru, Ecuador, etc.) and South-East Asia.

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

If a few years ago Russian software exporters were mainly oriented towards the markets of the western countries, in recent years they began active promotion of their solutions in developing countries where the IT market is growing very quickly and in many cases is already sufficiently large. Activation of operations in these countries ensures one more source of Russian software product export growth.

The largest exporters also have opportunities to strongly increase foreign sales by introducing new solutions in the global market. For example, Kaspersky Lab is creating its own operating system, which is expected to be much safer than the existing analogs. This project details are not revealed but it is quite probable that such system will be in demand in many markets.

R&D and software development centers of foreign corporations (captive centers)

Volume – $500 million.

Export volume growth – 12%.

In 2012 some more international companies started implementing the earlier declared plans for creation of new R&D centers in Russia. Generally, these centers appeared thanks to the Skolkovo Foundation and to the self-named innovation center being built near Moscow. Residents of this center already receive certain tax incentives. A possibility of obtaining incentives (first of all, in taxation ones) supported an increase in the volume of foreign corporations' investment into R&D services in the territory of the Russian Federation. In comparison to 2011 the amount of these services increased at least by 12% and reached $500 billion.

Such powerful corporations as IBM, Cisco Systems, Microsoft, and SAP were among the active investors in implementation of R&D in the territory of Russia in the last 2 years. SAP plans to bring its research division staff up to 250 people by 2015, and its R&D investment volume – up to 45 million euro. Microsoft plans to develop software in Skolkovo for face and speech recognition in video, as well as software for multimedia data broadcasting. Microsoft's Russian development center staff size is expected to reach 150 people by 2015.

The R&D centers of EMC and Samsung have been operating for a long time in St. Petersburg and Moscow respectively, but both companies established additional centers at Skolkovo in 2012.

T-Systems (Deutsche Telekom' subsidiary) while expanding the number of developers in its St. Petersburg office, entered the labor market of Voronezh, where they already began to recruit programmers and to cooperate with Voronezh State University within the staff training program. The T-Systems office in Voronezh was opened in the autumn of 2012.

Chinese Huawei Technologies declared its plans to increase investments into R&D in the territory of the Russian Federation. Qualcomm, a US mobile microelectronics vendor, started sourcing a team that can form the basis of creation of its Russian development center last year. The company is interested in the experts who have experience in application programming and digital signal processing.

Facebook is also considering a possibility to establish its R&D in Skolkovo.

The primary and unsolved issue for international R&D centers is serious administrative barriers for import to Russia of hi-tech equipment for software development and testing. Thus, customs duties are applied when importing equipment. The problem of hi-tech equipment import could be generally resolved by Russia's accession to the IT Agreement within Russia's accession to the World Trade Organization.

Examples of foreign corporations which have their own R&D centers in Russia

Alcatel-Lucent, Allied Testing, AVIcode, Cadence, Design Systems, Chrysler, Cisco Systems, Columbus IT, Dell, Deutsche Bank, Digia, EGAR Technology, EMC, EMS, Ericsson, Google, Hewlett-Packard, Huawei, IBM, 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.

CHAPTER 3

MAJOR TRENDS AND TARGETS IN THE RUSSIAN SOFTWARE DEVELOPMENT INDUSTRY

Andrey Terekhov
Lanit-Tercom, CEO

Many years ago now, I was talking about how service companies should be performing research and using this as a basis to develop new software products. Product development is also possible on the basis of the experience obtained from custom development, especially development for international clients. At that time, however, young colleagues, even in my team, refused to accept this idea, saying that these were completely different kinds of business, that product development demanded completely different skills and financial structures to custom development or classic outsourcing. But now, it seems to me that a trend of new product development can be clearly observed in practically all companies. Perhaps somebody realized that, while the creation of new products is a risky business, it is a beneficial one, somebody had a product that came about without any effort – on the basis of other work, or maybe the widespread startup and innovation rage has also served its purpose. An example at Lanit-Tercom is computer stereo vision and the creation of a gesture recognition system for the advertising business on the basis of this, which is already on sale in Europe. I believe that this is the right direction.

Upon considering respondents' answers to questions about assessment of primary trends of the software development industry for a number of years, we should note a stable increase in the share of companies that construe domestic market growth and export growth as guidelines. Similarly, since 2008 "More active work at the domestic market" and "Work for export/expansion of the marketing network abroad" have been most often mentioned as the industry development tendencies and the business priority targets for a next year. The only exception was a reduction of the corresponding indicators in 2009 that was connected with uncertainty caused by the world financial crisis.

In 2012 a small decrease in the number of domestic market-oriented companies against some growth of export-oriented companies was observed, which is explained by the "rebound" (a decrease) of the Russian internal IT market in 2012 after a rapid growth in 2011 which was caused by a deferred demand during and after the crisis.

Regions where companies intend the most to play actively at the domestic market are Moscow and Ural region (83% and 88% correspondingly). St. Petersburg is well known for the primer aspiration of its companies towards the Global market (65%).

The increase of the companies' share which note "Growth of sales via Internet" as a priority tendency and main target – is quite natural and explicable. As in the previous years the greatest focus on growth of online sales is peculiar to the Siberian companies (50%).

Creation of remote development centers is considered to be the priority target by 60% of companies with turnover over $100 million, by 29% of companies with turnover from $20 million to $100 million, and by 15% of companies with turnover from $0.5 million to $4 million. There is no company with turnover less than $0.5 million that is aiming at creation of a remote development center.

Among business targets that have been identified as additional ("other targets"), respondents indicated the following: improvement and development or creation of new technologies (4 respondents) and also launching of new projects, change of business line, distribution network establishment (each area was mentioned by one respondent).

32. Main targets of companies development*

	2008	2009	2010	2011	2012
More active work at the domestic market	66%	68%	77%	73%	81%
Growth of online sales	22%	31%	28%	29%	36%
Work for export/expansion of the marketing network abroad	-	-	47%	52%	59%
Certification of software development processes	8%	13%	12%	13%	10%
Establishment of regional development centers	7%	12%	13%	15%	15%
Other			8%	8%	5%

* Respondents could choose more than one area

33. Priority areas for the companies' development in 2013

More active work in the domestic market	55%
Growth of online sales	9%
Work for export/expansion of the marketing network abroad	31%
Certification of software development processes	1%
Establishment of regional development centers	2%
Other	3%

It is indicative that the majority of respondents who noted "other" target consistently mentioned creation of new products and technologies year in and year out. We can state with certainty that if such target (development of products and technologies) is defined as a separate identified target, the number of companies to mention this target will significantly grow.

Among the major trends – Growth of local market kept the leadership, Export growth ceded the second place to the Growth of sales via Internet, while Production of licensed software was growing faster compared to the Providing of IT-servicers.

Apart from the previously mentioned trends, following tendencies were mentioned as secondary ones: domination of international companies and growth of system integration (once each tendency), as well as the growth of mobile applications in the market (twice).

In the recent years, such phenomenon as purchase of foreign companies by large Russian software enterprises has become distinct. Such purchases pursue different objectives. Remote development centers may be created on the basis of the purchased company (but by no means always). However, acquisition of a new asset abroad is mostly

34. Modern trends in the Russian software development industry

	2007	2008	2009	2010	2011	2012
Domestic market growth	71%	44%	49%	54%	51%	58%
Export growth	56%	19%	35%	35%	23%	37%
IT outsourcing growth (IT infrastructure support)	30%	34%	32%	28%	35%	32%
Growth of direct sales via the Internet	31%	27%	39%	38%	39%	47%
Market consolidation (mergers, takeovers, creation of holdings)	61%	21%	35%	30%	25%	31%
Increase in product developments (Box/Licensed Software)	32%	21%	26%	19%	26%	27%
Growth in development and adoption of software solutions (Services & Solutions)	50%	18%	35%	24%	37%	32%
Increase in custom software development (Custom Software Development)	38%	14%	35%	29%	30%	31%
Adoption of quality management systems	38%	10%	21%	12%	20%	24%
Others	-	-	12%	4%	10%	4%

aimed at getting access to new markets and to new customers. Later in this chapter, in the section dealing with investments this aspect is addressed in more detail.

Quality management system certification

The survey attributed particular place for studying the issue of quality management system certification. It slightly decreased over the past year. The share of companies that mentioned obtaining the Certificate of Compliance with the international standards (ISO, CMM, and CMMI) among their main objectives declined from 13% to 10%. The share of companies that possess at least one such certificate decreased from 36% to 26%. The survey results for several years showed that this indicator fluctuation within 5% can be explained by the error of estimate. However, proper allowance must be made for the fact that the share of service companies among the respondents was considerably reduced in this year while software vendors need the ISO, CMM or CMMI certificates to a lesser extent than the enterprises that specialize in custom software development.

One of explanations of the decrease in interest in certification is the fact that all large service companies had been certified in the years 2000+ (Russia takes the leading place in Europe by the number of certificates on compliance with the CMMI standard highest levels (4 and 5)). At the same time, the reduction in the share of companies having valid certificates is most likely caused by the accelerated growth of the number of software vendors resulting in an increase in the share of product companies which do not have special requirements for quality management system certification.

The share of the companies that plan to obtain certificates in the next two years has considerably reduced. If there were 46% such companies among the respondents that did not possess the certificates a year ago, this year there are 27%. Considering this share of all respondent companies, the figure was reduced from 29% to 27%.

It is obvious that companies (especially small ones) are more realistically estimating their chances to go through expensive certification and the benefits of certificate issuance.

According to the interviewed experts, the issue of establishing a quality management system in the software development companies in Russia lost its urgency 5-7 years ago. Practically all companies have their own quality management systems to a varying degree. For those service companies, which participate in the international tenders with formal requirements for availability of CMMI

certificates, this problem is resolved by the regulatory certification. All product companies and small service providers content themselves with ISO or implement their own quality management systems based on ISO and CMMI, but not requiring expensive procedure of certification and its confirmation.

The state support in this field is insignificant, so most of the companies are not aware that in the competing countries States are strongly interested in the quality management system certification of domestic companies. Therefore, the respondent companies in Russia are either satisfied with this support (37%) or assess it with the failing grade (57%). The estimates of the state support for certification practically have not changed in comparison to the last year.

In 2007 the first authorized (and later – certified) CMMI Expert appeared in Russia, and in 2009 – the first Russian-speaking Lead Appraiser (that still remains the only one). 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 have a serious bearing on the certification cost.

35. Share of companies certified to international standards

	2008	2009	2010	2011	2012
Not certified	65%	61%	69%	64%	74%
ISO	31%	31%	29%	35%	24%
CMM	0%	7%	3%	3%	1%
CMMI	4%	7%	2%	6%	6%

*- more than 100 % overall because some companies have been certified for compliance with more than one standard

36. Evaluation of the State support for international certification

	Low	Satisfactory	Good
2009	56%	40%	4%
2010	78%	21%	2%
2011	57%	41%	1%
2012	57%	39%	4%

* more than 100 % overall because some companies have been certified for compliance with more than one standard

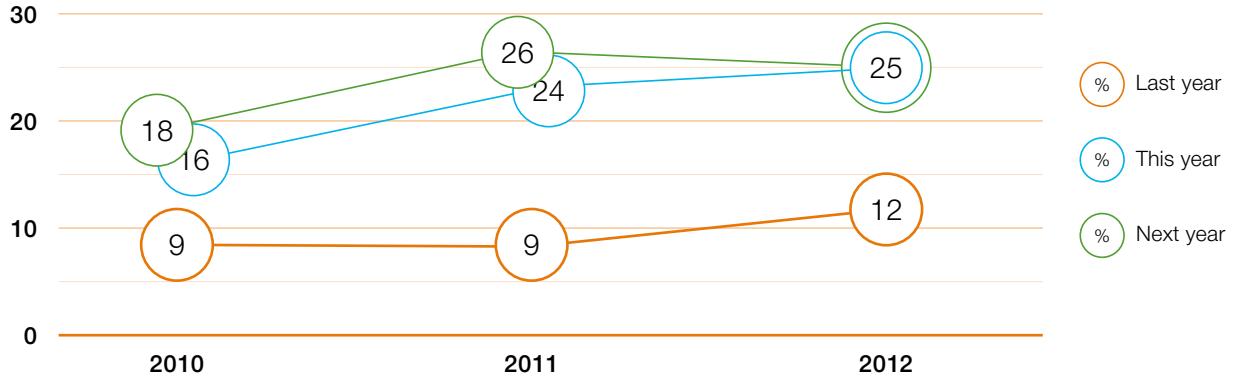
Investment promotion

The share of companies that attracted investments in 2009-2011 almost was not changing from year to year. Following results of 2012 we need to notice that for the first time after the corresponding questions appeared in the survey the indicator has increased (from 9% to 12%). Such increase looks natural considering the fact that last year the share of respondents that planned to attract investments in 2012 and 2013 increased (from 16% to 24% and from 18% to 24%, correspondingly). It is also natural that not all companies managed to effectuate their intents. However, as the number of companies planning to attract investments had grown, the number of those that managed to do that has also increased.

This year, as well as a year ago, about a quarter of respondents plan to attract investments in the following 2 years. According to the Russian Venture Company (RVC), more and more investment funds appear in Russia every year and the volume of available investment resources grows respectively. For the last two years, the volume of bond funds doubled annually and by the beginning of 2013 it reached about $6.8 billion. The number of funds has exceeded 150. According to RVC, considering the venture market as a whole, 70% of transactions of these funds fall on the IT industry. The total amount of transactions in 2012 was about $1 billion.

For the last two years, investments were most often attracted by relatively small companies with the turnover from $0.5 million to

37. Share of companies that attracted (or plan to attract) investments



$4 million. Last year, 15% of such companies managed to get external financing. Among the software development companies with the turnover over $100 million there are even more such respondents – 40% (but this category only included five companies, and significance of random factors with such quantity is great). Besides, a year before, only one tenth of companies with turnover over $20 million attracted investments (then, companies with turnover over $100 million were not selected in a separate group). Thus, the largest companies do not plan to attract external financing in 2013-2014. As a rule, they do need investments and the amounts in question are interesting for serious venture and investment funds (tens of millions US dollars). Most likely large companies either do not want to declare publicly their activities for attraction of investments considering this to be a private matter or they expect to reach the initial public offering (IPO) by their own efforts.

Venture funds begin their operations in the Russian market mainly in Moscow and St. Petersburg. Therefore, it is logical to assume that most of companies that managed to attract investments are located in these cities. This assumption is fair concerning Moscow (last year almost one fifth of respondents from the capital had external financing). St. Petersburg has shown the lowest result the second year in a row – only 3% of companies from this city attracted investments. There are 12% of such companies in the regions which have just started being interesting for investors. At the same time St. Petersburg companies plan to attract investments in 2013 and 2014 more often than others (32% and 30%, respectively). One could say they transfer IP to and find investments in other jurisdictions.

Companies that are mainly oriented to the Russian market manage to attract investments more often than those that gain the most part of their income from export (13% and 10%, respectively). Besides the software vendors have a small advantage in comparison to service companies (12% and 9%, respectively). However companies that are equally specialized in both – development of custom software and in development of standard solutions – were most successful in attraction of investments in 2012 (31%).

Although some business owners complain that they cannot find financing for their projects or ideas, the majority of venture investment experts consider that in Russia there is more money than high-quality projects. For example, according to the Russian Venture Company (RVC) the relation between the volume of available funds and the annual volume of investment in Russia is calculated as 7:1. However, experience of investment fund operations has proven that the optimum ratio is 4(5):1.

The reason is that there are still many projects that are good from the standpoint of technology development but are poorly "packed" from the viewpoint of business plan and marketing. It is understandable considering that the opportunity to attract investments with the wide range of startups appeared actually 2-3 years ago. The Russian market of venture investments has sprung up recently (in many respects thanks to such State development institutions as the Skolkovo Foundation and RVC) and it is natural that not all but just a few first-time entrepreneurs know how to attract these investments. Therewith, there are not enough those who can share their successful experience.

The ability to prepare high-quality projects is changing but not as quickly as the volume of venture investments is growing. According to the MoneyTree (Venture Market Navigator research carried out by the PwC Technology and Innovation Center and RVC) the total amount of venture investments in the Russian market in 2012 was $910.6 million, which was obtained as a result of 201 transactions (taking into account transactions only with undisclosed cost). The majority of the attracted venture investments still – like a year ago – fall on the IT sector. Companies from this sector attracted $792.1 million in 2012 which is twice more than in 2011.

The double growth of venture investments has been reached even though the share of the software exporters that obtained investments has only increased by one third. This implies a growth of the volume of investment per company. According to MoneyTree Venture Market Navigator, the venture deal average cost in the IT sector increased from $2.8 million in 2011 to $5.1 million in 2012.

At the same time, there showed up consequences of the fact that some first-time entrepreneurs who obtained investments 2-3 years ago did not manage to fit the market. As a result, funds and organizers of various competitions with prize money adopted then a more rigid approach to selection of prize contenders.

The RVC and PwC research showed that the wave of "emotional" startups and unfairly overestimated investment expectations came to the end in 2012. Last year investors began to employ a more careful approach to the selection of portfolio projects giving preference to those who could prove their own success and perspectives not only by word of mouth but also with actual business key figures. It concerns both private and state funds.

Following the MoneyTree Venture Market Navigator report, the year 2012 was also marked with the hyperactivity of venture funds at later stages of company development. For example, the number of concluded transactions at the seed stage in 2012 was by 22% less (60) than in 2011 (77), while at the "startup" stage almost double increase was registered in the number of transactions (65 transactions in 2012 against 34 transactions in 2011).

Last year, there were 12 investors' exits from projects to the total amount of $372 million (including transactions with undisclosed cost). Besides, three large transactions were concluded with the amount over $100 million each. Occurrence of such transactions is an important market development factor demonstrating that investors are ready for considerable investments in attractive projects.

RVC and PwC predict that in 2013 the growth rates of venture investments will decrease. However, the market is still far from saturation. So, an increase in the volume of investment by tens percent per year is still possible even if the double growth would not be retained. Following the results of 2012, Russia has taken the fourth place in Europe by the absolute volume of investments in technological projects and the first place by growth rates. It will be possible to speak about some signs of saturation when Russia becomes the absolute European leader by the volume of venture investments as other European countries are considerably behind Russia by population.

According to a study produced by the RVC and All-Russian Public Opinion Research Center, there are about one thousand active business angels in Russia. However, there is not enough information on their work. As a rule, they do not desire to provide publicly available information on transactions made. In this regard RVC suggests continuing systematic work directed at increasing the number of practicing business angels as well as at increasing transparency of this venture investment market segment.

Over the past year, after the issuing of our previous report, one more Russian high-tech company came through the IPO. As we already reported the EPAM Systems held the IPO at the New York Exchange in the beginning of 2012 and attracted $72 million. After some time of trading the price of company shares grew several times that showed investment capacity of software development industry service segment. The EPAM Systems achievements were especially significant against a relative failure of the most expected IPO of the year – that of Facebook.

In June 2013 Luxoft successfully placed 4.1 million shares on the American financial market. The flotation value was 12% of the total number of shares, and the company was valued at over $700 million.

Now Qiwi which has created the self-named payment system for settlement via e-wallets, plans to hold IPO at foreign exchang-

es. Company publicly declared its intention to hold the IPO in March, 2013.

Most likely, other large Russian companies also plan to hold IPO but they still have not made their final decision which could be reported publicly in the context of unstable world economic environment.

In October 2012, the OppenheimerFunds (American investment fund) became one of the largest Yandex shareholders after having purchased 5% of the total number of its shares. The market cost of this holding of shares is $390 million.

Investments of Russian companies and funds in other countries

With important increase in the amount of venture investment in Russia, recent years also witnessed a growth of investments of Russian citizens, of Russian companies and funds in the high-tech sector of foreign economies. We do not have precise information about the amount of investments and the growth indicators due to lack of relevant researches. Nevertheless, such conclusion can be drawn on a basis of transactions reported by mass media.

Russian investors can pursue different purposes when investing abroad. This may be acquisition of companies as resources for establishing their remote development centers. Besides, purchase of foreign enterprises provides software developers with access to new significant clients in the markets concerned. Finally, shares are also acquired in order to make profit from their resale or to get opportunities to exert influence upon decision-making process as the company's shareholder.

Foreign investments allow particular individuals or companies to enjoy their profit. However, they are also important from the viewpoint of Russian economy integration into the world economy. Acquisition of large shares in successful foreign companies is a way to adopt managerial experience and to find opportunities for cooperation between these enterprises and Russian IT companies, as well as to provide Russian companies with entrance into new markets. In certain cases, Russians obtain ready-to-use technologies that may be elaborated and used in their own business in Russia. Besides, money earned from purchase and sale of shares may return to the Russian IT sector. Judging by a number of successful transactions, this process is already well in progress.

First, it should be mentioned that after the Facebook's IPO their Russian shareholders (Mail.Ru Group, Alisher Usmanov, Yury Milner, Mikhail Frolkin, and others) became owners of shares worth a total of several billion dollars. Had they sold their shares, they would have received several times more money than they recently invested. For example, Mail.Ru Group acquired 2.4 % of the Facebook shares for $200 million in 2009. After the IPO, the price of this shares exceeded $2 billion. Although the Facebook stock value then fell down, Mail.Ru Group remains in the green.

At the end of 2012, one more investment with participation of Yuri Milner was announced. Together with Sergey Brin (the founder of Google), his wife Anne Wojcicki and several investment funds they invested $50 million in the 23andMe in the US which operates in the field of bioinformatics. It was declared that Milner is the leading investor at this round of investments.

Russians show their interest in many other American high-tech companies. Mail.Ru Group, Alisher Usmanov's DST Global fund, and Mikhail Frolkin 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 Runa Capital venture fund became an investor of the BigTime Software producing software for clouds.

Leonid Boguslavsky, one of the most well-known Russian investors, launched a venture fund priced at $100 million in the USA. The new fund will invest into startups in the software industry, in cloud computing – and eventually – in e-commerce and Internet services.

EPAM Systems expanded its presence at the North American market in the spring of 2012, after having purchased for $17.4 million Thoughtcorp, a Canadian software developer that has customers in retail, telecommunications, and finance. At the beginning of 2013, one more bargain with EPAM Systems participation was made: the company purchased Empathy Lab, an American consulting company specializing in development of digital strategies and UX design.

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, manufacturer of aircraft instruments. In the summer of 2012 a small Russian antivirus developer acquired a Hungarian company, VirusBuster. In the autumn of 2011 a group of investors that includes the DST Global Russian investment fund declared its intention to buy out the shares of the Chinese Alibaba Group from its employees and shareholders to the total amount of $1.6 billion (the transaction completion has not been reported yet).

In October 2012, InfoWatch (Natalya Kaspersky's company) declared acquisition of a 16.3% stake in G Data, a German antivirus programs developer that ranks No.2 at the antivirus market in Germany, yielding leadership to the Russian Kaspersky Lab. Acquisition of a stake in G Data is fully compliant with InfoWatch's plans to promote their own corporate products in the European markets.

The global software market and ways to increase sales for Russian suppliers

The world IT market is growing by only several percent per year. Thus, in the spring of 2013 the IDC analysts reviewed their forecasts concerning the world IT-market growth from increase to decrease. According to their findings based on results of 2013, the total world investments into IT in 2014 will be $3.7 trillion and will increase not by 5.5% but by 4.6% only (Gartner predicts almost the same figures – $3.8 trillion and 3.8%, respectively).

The review of the forecast is explained by budget cuts in the USA, by ongoing problems with debentures in Europe, and by a relatively low GDP growth ratio of China. According to the IDC analysts, the greatest gain of investments into IT can be expected in the developing countries such as Brazil and India. They may become the powerhouse of the entire global IT market in 2013.

According to the Gartner analytics, a slightly bigger growth is expected in the Corporate Software and IT Services segments than in the global IT market as a whole (6.4% and 5.2%, respectively). In 2014, the growth rates are predicted to be at the same level. Following the results of 2012, the worldwide volume of purchased corporate software was $278 billion and the cost of IT services – $881 billion.

According to the CompTIA International IT Association forecast, the growth of the global IT industry will be 3% in 2013. Thus, the decisive contribution to this growth will be made by the USA, where the growth will reach 2.9%.

Nevertheless, according to the analysts the situation in the American market (which is important for the Russian software exporters) is jittery. In 2013, the USA is going to cut down the expenditures on information support of governmental authorities by 0.7% (that will be as much as $79 billion). This reduction is insignificant by Russian standards. Thus, the US market still remains the world's No.1. However, considering its combination with the protectionist measures, such small reduction can mainly affect foreign companies that operate at the American market. As the importance of the US market has considerably decreased in recent years (see Chapter 5), this already manifests itself. In any case, it affects Russian exporter companies which start redirecting to other markets. Possibly, thing that matters is not only the budget cutting on information support of governmental authorities but a

reduction of the growth rate of the entire US IT market (particularly, in its segments that are especially important for Russian software exporters) and protectionism.

The Everest Group analysts also report about alarming situation at the US market. In their opinion, the economic problems of the USA (as well as of Europe and of some other key markets) caused a considerable reduction of a number and of a total cost of contracts in the global market of ITO\BPO in the second and in the third quarters of 2012. According to Everest Group, 381 new outsourcing contracts were concluded worldwide in Q3 that is 19% less than a year before. The total value of these contracts fell down even more – from $2.7 billion to $1.5 billion (by 44%) as the average cost of transactions reduced. In Q2, the number of contracts decreased by 20%. Such reduction is partly connected with some disappointment in outsourcing as well. According to the Deloitte research, some companies terminated their outsourcing contracts and returned to insourcing in 2012. This trend is mostly connected with the deterioration in the business environment in the developed countries and with a decrease in the IT experts' pay grade level that made their services competitive as compared to IT outsourcing services to the third countries. Thus, Deloitte experts revealed an "insignificant but developing" trend.

Although the macroeconomic environment in such large markets as the USA and Europe is not the most favorable for strengthening IT service sales, in the number of IT market segments there is a quite notable growth that can positively affect the Russian software export figures. It is particularly topical for the global expenses on information security services. They grow by more than 10% per year. Russian companies are traditionally strong in this sphere and have a very good worldwide reputation.

There is also a rapid growth of the global telematic services market where the Russian navigation and traffic monitoring applications are expected to take a rightful place. Availability of GLONASS system (its commercial operation is beginning in 2013) creates new promises for developers from Russia.

Russian companies and programmers are good at developing and selling abroad mobile applications, and this segment is one of the backbone directions of the global IT industry development. According to the analysts, "cloud services", social networks, and systems for "large data" analysis belong to the same line. Mobile applications can be developed and successfully sold abroad by even very small Russian companies as well as individuals.

According to J'son & Partners Consulting, the volume of the global mobile applications market reached $7.83 billion in 2012 and by 2016 it will reach $65.79 billion.

Last year the sales value of business applications for mobile devices reached $250 million. According to the J'son & Partners Consulting analysts, the market of mobile business applications has good growth perspectives in the next four years. If the share of business applications in the total mobile applications' global market in monetary terms was a little more than 3% in 2012, it will reach 5.4% in 2016.

Business Intelligence (BI – large data bulks analysis and interpretation) should be also 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. In these areas, Russian developers either have already made significant progress or have potential to approve themselves in the next years.

According to Gartner, e-business intelligence (BI) global market increased by 6.8% and reached $12.3 billion. In the previous years the growth was higher (for example, in 2011 it was 17%) but this segment is growing faster than the global IT market as a whole. Besides, higher growth rates are noted in developing countries where Russian companies have good opportunities to increase sales owing to higher loyalty to Russian solutions than in the Western markets.

According to the Russian IT industry development strategy, which was produced jointly by Russian Association of Computer and Information Technology Companies – APKIT) and by McKinsey, Russian software export revenues are expected to reach $27 billion in 2020. In order to reach such level of export it is enough to increase it approximately by 20% per year. Such export growth rates have been already observed on the average for the last three years (before the crisis, the growth rates were 40%-50% per year). With a certain State support, the export growth may be even higher.

A growing trend toward an increase of the project-based software development is favorable for Russian companies in comparison with the process outsourcing as Russian developers are stronger than others in high-tech projects.

An increase in developers' labor cost slightly slowed down in Russia in 2012. Nevertheless, this growth was noticeable. Russian providers of software development services lost the low labor cost advantage before the world economic crisis in 2008. The exception to this is the case when in addition to Russian companies West European and American service companies participate in the tender. At the same time, the man-hour cost is often a less important criterion for a customer when selecting a project contractor. Customers pay more and more attention to the developer skills (technical, communication and cultural).

Nevertheless, the deficit of developers and increase in labor cost led to the fact that the growth of software export in Russia in 2012 was higher than that of software development services. This gap will probably remain in the next years, although there is still a potential for an increase in sales of the software development services' sector.

No more than 2.5% of total production falls on the share of Russian software companies in the global software market (including customized development services). However, for many years this share has been increasing by approximately 0.1% per year irrespective of the global market growth deceleration or acceleration.

Russia is far behind India (more than 10 times) by software export volumes in monetary terms. However, the gap is gradually narrowing (10 years ago, the gap was 20 times). Russian developers should not look up to the Indian IT export volume figures. The difference in population and in living standards is too great. At the same time, the Russian industry is on firm ground in the most profitable high-tech development segments, where it is worth increasing Russian developers' competences for enhancing their competitiveness.

CHAPTER 4

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

Main geographical markets

In comparison with the last year's survey results, the average number of mentioned key markets per one company considerably reduced (from 1.87 to 1.56). The same applies to the markets in which respondents are present with just single projects (from 3.9 to 3.3). The decrease appears to be even more significant considering that this year one more region — the Middle East – was added in the appropriate questionnaire. It turned out that 10% of the respondent companies already operate in this market that adds 0.1 per one company when considering all mentions together.

Now, the respondents less often mention almost all markets as the key ones. The exceptions are Russia, Ukraine, Belarus, and the «Australia, Africa, South America» region.

The vast majority of respondent companies (89%) still operate in the Russian market. However, the share of the companies considering it as the key market sharply decreased — from 79% to 24%. The Russian market has never had such low figure for the entire research period. Possibly, this figure was affected by the reduction of the market growth rates in 2012, as well as by extending opportunities of access to foreign markets.

The interest in the «USA and Canada» market, which increased after the crisis, was replaced with a sharp de-emphasis for the respondents in 2011.Last year, 31% of respondent companies were present at this market (a year before, there were 45%), and only 14% of respondents consider it as the key one (in 2011, there were 30%). The index of American market importance for Russian software exporters turned out to be the lowest for the last 10 years.

The next year's survey results may allow stating a decrease in Russian developers' interest in the Russian and US markets more definitely as such sharp change of attitude

38. Presence of Russian companies in the world markets*

	2007	2008	2009	2010	2011	2012
Russia	55%	87%	89%	99%	93%	89%
USA and Canada	55%	52%	38%	40%	45%	31%
Ukraine	17%	35%	41%	57%	35%	34%
Other countries of Western Europe	35%	30%	33%	35%	40%	25%
Other countries of the former USSR	39%	26%	34%	51%	50%	36%
Belarus	32%	23%	31%	45%	29%	31%
Germany	25%	24%	28%	33%	34%	26%
Scandinavia (with Finland)	28%	18%	18%	20%	27%	19%
South East Asia	19%	14%	19%	19%	23%	15%
Australia, Africa, South America	25%	7%	12%	19%	15%	15%
Middle East	-	-	-	-	-	10%

* the markets which are key ones or the marketplaces where separate projects are implemented

towards these markets in 2012 can be partly explained by the considerable change of the respondent structure in comparison with the previous survey.

Ukraine and Belarus, «Other countries of the former USSR», and Germany are mentioned as the key market more often than a year ago. Software exporters not only focused on a smaller number of markets, but reoriented towards the near-shore countries and to Germany.

A few years ago, Russia and the USA were way ahead by the frequency of mentions as the key markets. However, for the last years, the USA backslided from the second place to the 6th-7th spot, and Russia shared the first place with the countries of the former USSR. According to respondents, the near-abroad countries are considered to be the most prospective market for the next two years, although a small growth of interest is expected in regard to the Western Europe (except Germany and the Nordic Countries), the USA, the South East Asia, the «Australia, Africa, South America» region, and the Middle East.

The change of attitude towards the «USA and Canada» market concerns both small and large companies. In 2012, 36% of respondents with the turnover more than $4 million operated at this market (a year ago there were 70%). In the previous years the situation here was different. A reduction of mentioning American market was generally taking place at the expense of small companies that had an insignificant total export.

As in the previous years, St. Petersburg leads with the highest number of companies that operate in the foreign markets (except Asia and the Middle East). Moscow is in the lead by the share of exporters that are mainly oriented towards the markets of the former USSR republics.

In the last three years, opening of sales and of 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.

At the end of 2012, the InfoWatch reported that they were thinking of opening its office in the United Arab Emirates or Saudi Arabia.The share of this region in the company's revenue is quickly growing. InfoWatch already runs projects in Bahrain, Kuwait, Saudi Arabia, and other Middle Eastern countries.

39. Key markets

	2007	2008	2009	2010	2011	2012
Russia	42%	71%	72%	86%	79%	24%
USA and Canada	43%	28%	26%	15%	30%	14%
Other countries of Western Europe	12%	15%	10%	12%	17%	13%
Ukraine	6%	13%	11%	10%	9%	22%
Other countries of the former USSR	12%	7%	11%	6%	11%	24%
Belarus	24%	9%	8%	12%	8%	20%
Germany	11%	10%	12%	12%	14%	18%
Scandinavia	13%	8%	6%	6%	8%	8%
South East Asia	6%	6%	3%	3%	7%	6%
Australia, Africa, South America	9%	3%	2%	1%	4%	3%
Middle East	-	-	-	-	-	3%

The news connected with expansion of the Russian companies in the foreign markets for the last 2-3 years:

ABBYY acquired 100% of the Connective Language Services in order to extend its share of localization and support in the US market.

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

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

In January 2011, Vitim has officially opened its office 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 software in sphere of speech record, processing and analysis.

NIS GLONASS has registered the NIS GLONASS Pvt Ltd subsidiary in India, which will be engaged in the large projects requiring system integration and in creating the distribution network for its solutions in the consumer market. It is supposed that the subsidiary will help to promote the GLONASS navigation technologies in the Indian market.

In April 2013, the i-Free and China Telecom, a Chinese mobile network operator represented by the Dazzle Interactive Network Technologies subsidiary, signed an agreement on strategic cooperation in the field of mobile games.

In April 2013, the integrated automated security management system developed by the RTEC was presented at LAAD-2013, the leading armament exhibition in Latin America.

At the beginning of 2013 Mail.Ru Group launched the Spanish version of its mail service interface. According to the Internet World Stats, Spanish is one of the top-3 languages spoken by Internet users globally.

In March 2013, Naumen from Yekaterinburg reported that Magellan Solutions, a Philippine outsourcing call center, began operations based on the company's software. Naumen expects to start expansion in the region with automation of 100 workplaces of this center. According to developers, the size of the Philippine call-center service market is considerably larger than the similar Indian market and is measured in billions of dollars.

Vertical markets

40. Frequency of vertical market references in 2006-2012 (percentage of all respondents)

	2006	2007	2008	2009	2010	2011	2012
Information Technology	89%	88%	69%	71%	74%	70%	74%
Banking*	35%	36%	36%	28%	23%	36%	26%
Telecom	34%	44%	33%	29%	26%	38%	31%
Industries	31%	40%	31%	34%	27%	36%	38%
Hospitality, Travel & Transportation	24%	29%	31%	26%	28%	37%	29%
Government	28%	38%	25%	28%	21%	31%	24%
Power supply, Gas & Oil	18%	27%	24%	19%	17%	22%	22%
Healthcare & Pharmaceuticals	23%	29%	24%	18%	23%	29%	28%
Retail & Distribution	35%	38%	24%	21%	26%	41%	29%
Education	36%	32%	23%	24%	21%	28%	28%
Science & Research	-	-	-	-	18%	28%	26%
Gambling & Entertainment	20%	19%	11%	12%	9%	17%	15%
Media	-	-	-	-	13%	20%	18%
Sport & Travel	-	-	-	-	10%	20%	17%
Insurance	-	-	-	-	13%	28%	15%
Building & Real estate	-	-	-	-	12%	23%	17%
Services	-	-	-	-	27%	40%	35%
Finances	-	-	-	-	25%	30%	26%
Energy	-	-	-	-	17%	22%	21%

* before 2010 – Banking & Financial Services

For the previous 10 years, no regular change in the importance of separate vertical markets was revealed. The majority of the figure fluctuations are random or temporary. In the results of 2012 survey we can only note the upward trend of mentioning the “Information Technologies” segment that reflects the increasing concentration of Russian developers in the B2B segment for technological companies all over the world. We can also note some decrease in importance of the financial and e-government sectors against a small growth of interest towards industrial production automation.

As a whole, it can be concluded that Russian export companies’ industry priorities have not changed essentially for the decade.

The only clearly revealed regularity connected with vertical markets is a sharp reduction of their total frequency of mentions during the period of crisis. In 2009-2010, software developers were forced to focus their efforts on the areas in which they were most competitive or which were least affected by the world crisis.

Only 3% of respondents mentioned “Other” (not listed) vertical markets. ”International Organizations”, “Advertising”, “Housing and Utilities” (twice), “Agriculture”, “Security companies” were mentioned.

Software development center geographic distribution

31% of respondents (a year ago, there were 35%) reported existence of one own remote software development center. The share of these companies varied within 25–40% during the recent years.16% of respondents (there were 17% last year) reported two and more remote development centers while 7% of companies (last year, there were 10%) have at least three such centers.

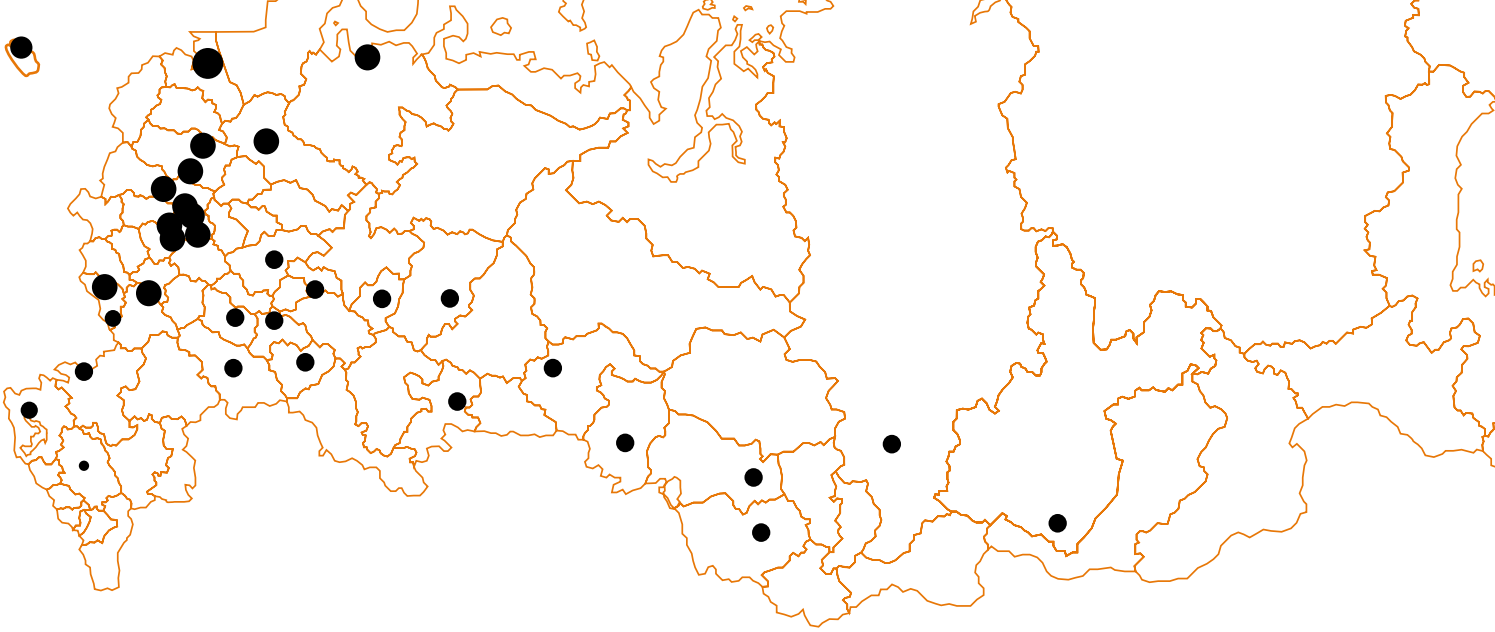
Most of Russian companies' foreign development centers are located in Ukraine. It can be surely assumed that this country is significantly ahead of other countries and regions by the total number of the employees working for Russian companies outside Russia. In Ukraine there have been created favorable conditions for software companies (many experts consider that these conditions are better than in Russia) and the labor cost is much lower there than in Russian capitals.

Luxoft has more staff in its production divisions in Ukraine than in Russia (about 2600 employees of nearly 6000 worldwide). In addition to Luxoft, EPAM Systems and DataArt also have their large development center networks in Ukraine.

Many Russian companies' remote development centers also operate in Belarus and in other CIS countries. However, Ukraine has a special place as it is the second largest post-Soviet state (after Russia) by its population. According to Luxoft, there are about 38 thousand qualified programmers in Ukraine. Every year, the Ukrainian higher education institutions produce 18 thousand IT graduates who know English generally better than Russians.

The majority of the Ukrainian software development centers of Russian companies are located in Kiev (this year, there are offices of 5% of respondent companies). There are 2-3 times less development centers in Kharkov, Dnepropetrovsk and Odessa. The following Ukrainian cities are also mentioned there: Sevastopol, Kherson, Lvov, Vinnytsa, Cherkassy and Anthracite (Lugansk region).

In Belarus, the majority of software development centers are also located in the capital city of Minsk. There are also development centers in Gomel, Vitebsk, Mogilev, Alekseyevka and Brest.



41. Rating of Russian cities (by number of companies' head offices and remote development centers)

1	Moscow	46
2	St. Petersburg	45
3	Novosibirsk	10
4	Nizhny Novgorod	8
5	Kazan	6
6-7	Omsk	5
6-7	Izhevsk	5
8-10	Voronezh	4
8-10	Yekaterinburg	4
8-10	Taganrog	4
11-15	Krasnoyarsk	3
11-15	Rostov-on-Don	3
11-15	Ulyanovsk	3
11-15	Perm	3
11-15	Kolomna	3
16-25	Kaliningrad	2
16-25	Barnaul	2
16-25	Belgorod	2
16-25	Zelenograd	2
16-25	Oryol	2
16-25	Penza	2
16-25	Puschino	2
16-25	Samara	2
16-25	Cherepovets	2
16-25	Tver	2

Remote development centers operate in 25 Russian cities. Most of them are located in St. Petersburg (8), Nizhny Novgorod (5), Moscow (4), Voronezh (3), Kazan (3), and Krasnoyarsk (3).

Russian export companies are present (have their head offices, remote development centers or sales agencies) in 60 Russian cities

42. Rating of Russian cities (by the number of the company head offices, trade offices and remote development centers)

1	Moscow	64
2	St. Petersburg	52
3	Nizhny Novgorod	12
4	Novosibirsk	10
5	Kazan	7
6-8	Voronezh	6
6-8	Yekaterinburg	6
6-8	Omsk	6
9-12	Izhevsk	5
9-12	Krasnoyarsk	5
9-12	Rostov-on-Don	5
9-12	Ulyanovsk	5
13-15	Kaliningrad	4
13-15	Perm	4
13-15	Taganrog	4
16-19	Barnaul	3
16-19	Belgorod	3
16-19	Kolomna	3
16-19	Chelyabinsk	3
20-33	Arkhangelsk	2
20-33	Dubna	2
20-33	Zelenograd	2
20-33	Irkutsk	2
20-33	Krasnodar	2
20-33	Obninsk	2
20-33	Oryol	2
20-33	Penza	2
20-33	Puschino	2
20-33	Samara	2
20-33	Saratov	2
20-33	Stavropol	2
20-33	Tyumen	2
20-33	Cherepovets	2

43. Geography of remote development centers
(share of respondents who specified a country or a region)

	2008	2009	2010	2011	2012	Planned to open a development center in 2012-2013	Plan to open a development center in 2013-2014
In Russia	19%	23%	18%	28%	24%	12%	4%
In Belarus	4%	6%	6%	7%	8%	6%	3%
In Ukraine	4%	6%	7%	7%	10%	2%	1%
In other CIS countries	4%	1%	2%	3%	6%	2%	0%
In Western European countries	4%	4%	4%	5%	5%	2%	1%
In Central and Eastern European countries	3.5%	1%	4%	3%	1%	3%	1%
In USA and Canada	3%	5%	4%	3%	3.5%	2%	1%
In South East Asia	0.5%	3%	2%	5%	1%	2%	1%
In Africa	-	-	-	0%	0%	2%	0%
In South America				0%	0%	2%	1%
In the Middle East				0%	1%	1%	0%
Gambling & Entertainment	20%	19%	11%	12%	9%	17%	15%
Media	-	-	-	-	13%	20%	18%
Sport & Travel	-	-	-	-	10%	20%	17%
Insurance	-	-	-	-	13%	28%	15%
Building & Real estate	-	-	-	-	12%	23%	17%
Services	-	-	-	-	27%	40%	35%
Finances	-	-	-	-	25%	30%	26%
Energy	-	-	-	-	17%	22%	21%

Among other CIS countries, Kazakhstan is an attractive place for creation of remote development centers. The Baltic states (with cities of Riga, Vilnius, Liepaja) are also mentioned. It is quite possible that in the next 2 years several new production sites of Russian software developers will appear in Kazakhstan.

As a whole, the share of respondents who plan to expand its network of remote development centers or to create its first center, was considerably reduced in comparison with the previous year. Probably, some companies concentrated their efforts not on opening new production sites but on expansion of already existing ones. Besides in Ukraine, Belarus, and other countries, a limitation of available human resources is beginning to emerge. In any case, only 12% of respondents plan to create new development centers in 2013-2014.

Respondents have their remote production sites in 45 cities of Russia (last year, there were 46). The leading five cities, where the majority of head-quarters and of remote development centers are located, remained the same in comparison with the previous year. Kazan has gained a foothold on the 5th place and – keeping up cur-

44. Share of export companies that have remote development centers in 2013

	Somewhere	In Russia	Plan to open a development center in 2013-2014
Turnover less than $0.5 million	14%	5%	0%
Turnover from $0.5 million to $4 million	23%	15%	12%
Turnover from $4 million to $20 million	56%	50%	28%
Turnover from $20 million to $100 million	64%	64%	9%
Turnover higher than $100 million	100%	80%	20%

rent pace – it pretends to catch up with Nizhny Novgorod within two-three years ahead.

Development centers in Moscow and in economically developed countries with a high programmers' salary level are opened purposely either to access high competences or to support customers' project by local engineers. Western companies are often being acquired for this purpose.

For example, in April 2013 Luxoft declared the acquisition of Freedom OSS, a US developer of corporate open source software using RedHat products. The acquisition was made in order to obtain new customers from the US financial sector.

Earlier, in the spring of 2012 EPAM Systems expanded its presence in the market of North America, having acquired for $17.4 million Thoughtcorp, a Canadian software developer with customers in retail, telecommunications, and finance. At the beginning of 2013, one more bargain with EPAM Systems participation was concluded: they purchased Empathy Lab, an American consulting company specializing in development of digital strategies and UX design.

Geographic distribution of marketing and sales offices of Russian companies

One third of respondents have their sales offices abroad or in other cities of Russia.12.5% of companies have only one sales office, 21% – at least two, and 12.5% of respondents have at least three sales offices.

According to the last year's research forecasts, about 20% of respondents planned to open new sales offices. However, the total quantity of companies that have sales offices almost did not change. The situation has remained stable for 5 years. It is generally explained by the fact that major service companies take part in the survey in a regular way. The leaders among them established long ago, they create almost all new sales and support centers while small- and medium-sized service companies are developing far less rapidly. New software vendors who are promptly developing in the last 3-5 years thanks to the efforts of the State development institutes (first of all Russian Venture Company – RVC), are unwilling to participate in the research; they create their offices abroad but try not to display their Russian origin.

We should note a very small percentage of companies that have sales offices in Belarus and Ukraine, although these markets are mentioned as the most significant for respondents. Apparently, they are specified as important, first of all, from the viewpoint of developer resource availability.

There is a considerable increase in interest in the African market which was exotic for the Russian companies for a long time.6% of respondents plan to open their sales offices in the African countries in the next two years. Last year, the corresponding figure was equal to 2%.Some companies really demonstrated their interest in the African market in recent years, but such big growth (three times) may be caused by random factors (for example, by change of the respondent structure).

45. Presence of sales offices (the share of the respondents who specified a country or a region)

	2008	2009	2010	2011	2012	Plan to open at least one new commercial agency in 2012-2013	Plan to open at least one new agency in 2013-2014
In Russia	15%	27%	26%	19%	21%	8%	8%
Abroad (in foreign countries)	17%	29%	26%	27%	26% (17%)	-	20% (17%)
In Belarus	0%	6%	10%	2%	6%	1%	1%
In Ukraine	1%	11%	14%	3%	6%	2%	1%
In other CIS countries	1%	8%	9%	6%	6%	3%	6%
In Western European countries	11.5%	11%	11%	16%	5%	8%	6%
In Central and Eastern European countries	2.5%	3%	2%	3%	2%	4%	6%
In USA and Canada	12%	11%	9%	19%	15%	4%	5%
In South East Asia	2%	3%	1%	6%	3%	3%	3%
In Africa	-	-	-	2%	0%	2%	6%
In South America	-	-	-	3%	2%	3%	1%
In the Middle East	-	-	-	3%	1%	4%	1%
All countries and regions	28%	41%	39%	34%	33%	20%	25%
Sport & Travel	-	-	-	-	10%	20%	17%
Insurance	-	-	-	-	13%	28%	15%
Building & Real estate	-	-	-	-	12%	23%	17%
Services	-	-	-	-	27%	40%	35%
Finances	-	-	-	-	25%	30%	26%
Energy	-	-	-	-	17%	22%	21%
Share of exporting companies with sales offices in other cities and countries							
Turnover less than $0.5 million	5%	18%	22%	5%	14%	15%	14%
Turnover from $0.5 million to $4 million	30%	45%	27%	32%	28%	19%	24%
Turnover from $4 million to $20 million	47%	48%	70%	57%	39%	24%	33%
Turnover from $20 million to $100 million	-	-	-	-	73%	-	36%
Turnover higher than $100 million	-	-	-	-	80%	-	20%
Turnover higher than $20 million				56%	75%	22%	31%

CHAPTER 5

HUMAN RESOURCES AND LABOR MARKET

Ivan Orekhov
ISS Art, LLC,Owner, CEO

According to our experience, the main reason why software developers leave is for freelance. The main characteristic feature of freelancers is that they do not care about their reputation and may stop working at any time for any reason. This makes a bad impact on the overall Russian developers' reputation. Most freelancers do not pay taxes, work at home and have nearly no organization expenses. No-one is scared of being held liable for their illegal business activities.

This market segment in Russia, according to various sources, makes approximately $500 million annually, around 300 000 people.

To arrange work with freelancers effectively it is necessary to have universally available instruments providing system work quality and transparency. Such instruments have already been developed and several companies are using them.

To solve the issue on a global scale, drastic measures of government support need to be taken.

I call all IT companies to unite and create regional and federal associations with the purpose of mutually profitable partnership and the protection of common interest.

Following the conclusions of this research we can assume that a total of 120 thousand professional software developers work in the Russian software companies (including those who work in their dedicated development centers in other countries).

It is necessary to explain that the number of personnel in the software companies includes not only those employees who are directly engaged in coding but also architects, team/project/quality managers and others who are actually involved in software development process. Linguists are also subject of professional staff in some software companies. Besides, software developers sometimes produce and sell their own electronic equipment (hardware) that is based on their own software. Most likely, those who are engaged in development and assembly of hardware can be also considered as a part of the original staff of a software company.

The number of staff in the responding companies increased by 14% in 2012 and 4.6% of their staff was university graduates. Considering the fact that the survey covered almost all largest service companies (while the staff of SMEs did not grow) the overall staff growth for all Russian companies was much lower – within 8-10% whereas about 2-3% university graduates were engaged in the companies' staff. According to the ANCHOR High Technologies recruiting company, the number of software developers in Russia increased by 9% in 2012 (by 11% in 2011) but their analysts considered all kind of staff (not only working for software companies) excluding only staff in the offshore development centers of Russian companies.

Thus, an additional engineers' accession to Russian software companies in 2012 reached 9.5-11.5 thousand people. University graduates provided an addition equal to 2-3 thousand people. This data do not consider the staff of startups that had been created in the last 2-3 years and thus – were not included in the RUSSOFT database. This figure is expected to be comparable to data on the larger companies' recruitment, considering the fact that the number of new startups increased several times from 2010 to 2012 (see Chapter 3, the Investment Attraction section).

46. Approximate distribution of software developers by the largest cities of Russia

Moscow	35%
St. Petersburg	15%
Yekaterinburg	5.2%
Novosibirsk	5%
Nizhny Novgorod	2.5%
Kazan	2.4%
Voronezh	1.2%

47. Number of CVs in the Software Development section on the Superjob website (for the year)

Moscow	18.5 thousand	31%
Petersburg	8 thousand	13.3%
Throughout Russia	60 thousand	100%

Source: Superjob research center

Russian companies' offshore development centers employ 18-20 thousand people. Thus, in the territory of Russia there are at least 100 thousand software developers in the software companies. The number of people employed in the software industry (taking into account secretaries, marketing and sales managers, and others) is much higher.

In addition to universities, another main source of Russian companies' staff size grow this the segment of offshore development centers, which actively recruited developers in 2012. According to experts (largest employers and representatives of recruiting agencies), the inflow of developers to Russia has no considerable influence on the labor market demand and supply. The same applies to the personnel outflow abroad, which still takes place but is not as massive as it used to be about 10 years ago. According to surveys produced by recruiting agencies, there are a lot of people desiring to work abroad – at least 25%. However, the vast majority of these people do not leave Russia for various reasons.

According to the ANCHOR High Technologies, 26% of Russian software developers are employed in Russian software companies. Others work in the IT divisions of government institutions, banks, large industrial companies, Internet companies, and so on. Thus, slightly less than 400 thousand software developers are engaged in the IT-industry.

According to Microsoft estimations (based on the domestic sales of licenses for development tools, DBMS and other software used by programmers), the number of developers in Russia reached 350 thousand people in 2010. Taking into account the recruitment that took place for 3 years, at least 400 thousand software developers are supposed to work in Russia in 2012. Taking into account the complexity of calculations and a great degree of uncertainty, these two estimations of number of software developers which were received in absolutely different ways are in agreement with each other.

According to the Microsoft estimations, about 20 thousand new professional software developers (generally, university graduates) appeared in Russia every year before 2010. The data published by the Russian government are approximately the same. Unfortunately, government authorities hardly have their own data from official statistics. The available state statistics still does not meet requirements of the market economy, which is even more true for statistical information (including data on the employment of population) that characterizes development of the hi-tech economy sector.

In addition to software companies, banks are also actively engaging software developers who appear in the labor market. According to HeadHunter, banks were the most active employers of IT engineers (not only programmers) in 2012.

Data on the total number of IT professionals working in Russia varies greatly depending on the information source. Dmitry Medvedev, Russian Prime Minister, reported in December 2012 that 0.6% of working-age population (about 520 thousand people) was employed in the IT industry of Russia, while in economi-

cally developed countries – a usual figure is 4-5%. Mark Shmulevich, Deputy Minister of Telecom and Mass Communications, considers that nearly 1 million people are engaged in the IT industry (the industry's staff figures are higher because they include IT engineers working for IT companies as well as those in the IT divisions of enterprises in all economy sectors, in government bodies and in the social sphere). This data is quite realistic, but nevertheless, it requires regular verification, clarification and explanation in regards to the estimation methodology and meaning.

According to the Association of Computer and Information Technology Companies (APKIT) three years ago at least 60 thousand IT professionals graduated annually from universities, one third of whom started to work for the IT industry while the demand for such professionals is 1.5 times higher.

The government has already been trying to change the situation in the IT education. At the end of 2011, Vladimir Putin, then the Prime Minister of Russia, approved the list of specialties in higher educational institutions and the list of scientist areas that correspond to priority directions of the Russian economy modernization and technological development. The list included about 100 positions, approximately one third of which dealt with the ICT sphere. Since 2012, students and scientists who have chosen prioritized directions will apply for presidential and for governmental grants which will be rather big by Russian standards.

Besides, the Ministry of Education approved the three-year retraining course program for technical staff where at least 15 thousand people are supposed to be trained. This program will be implemented based on the public and private partnership. Ministry of Education is ready to finance up to 50% of the employers' expenses on engineer retraining. Up to $10 million are supposed to be annually allocated for these purposes in the Ministry's budget. This program provides professional training in Russia as well stages abroad. Similar support measures are to be taken and being prepared on the regional level.

Unfortunately, the proposed program is intended for staff retraining based on the existing chairs of universities and does not foresee involvement of capacities of training centers that have been created by medium and large Russian companies as well as foreign corporations' training centers in Russia. Experience shows that in terms of professional development and retraining the efficiency of higher education institutions is lower than that of companies' training centers as the majority of university professors are not involved in specific development projects on a regular basis.

Considering all aforesaid, it can be stated that the existing educational system is only capable to partially reduce the deficit of IT engineers and, in particular, of software developers. It is especially fair taking into account the "demographic hole" in Russia which will be observed until 2018. Besides, changes in the education system will give effect at best in 2-3 years.

Another way of reducing staff deficit may be seen in involvement of trained and experienced professionals from abroad. Rather favorable conditions for mass recruitment of foreign qualified personnel to Russia have arisen during few recent years. Thus, in search of staff our companies can be oriented not only towards the neighboring countries but towards the far-abroad countries as well. By the level of programmers' salaries, Russia is more attractive than many other countries. Even in once-affluent countries of Western Europe, business recruits fewer engineers or reduces the headcount due to the economic recession. The programmers' salaries in Southern Europe are already lower than those in St. Petersburg and Moscow. It could be assumed that West Europeans who are used to have a certain level of comfort would not want to go to Russia. However, it is not the case any longer. Not only citizens of East European states but also those of Western Europe willingly hold positions of top managers and supervisors in Russian companies.

Nikolay Nikiforov, the Minister of Telecom and Mass Communications of the Russian Federation suggested in Autumn 2012 that Russian companies should engage professionals from abroad. He was supported by the senior management of the largest Russian software companies. However, within six months of that no decisions on simplification of the migration regulations were adopted at the government level, although the discussion is under way.

Participants of the ACM International Programming Collegiate Contest' Final which was held at the beginning of July 2013 in St. Petersburg, had difficulties when obtaining Russian visas (a number of foreign journalists invited by sponsors did not manage to arrive in Russia, although the visas were requested a month before the planned trip). Participants of the Contest should have been persuaded to come to Russia, having in view that in the future some of them may want to come to work for Russian companies. Instead, the existing visa policy de facto hindered their participation in the Contest in St. Petersburg.

Russia needs to be involved in the global staff competition but such visa and migration policy will prevent from doing this. While the USA are making decision on the number of employment visas provided to foreign IT professionals (100 thousand or 300 thousand), Russia is only beginning discussing on theoretical possibilities of recruiting staff from abroad.

Employee recruitment and headcount reduction

The total staff of the respondent companies increased by 14% from the end of 2011 to the end of 2012. This happened largely thanks to the offshore development centers that have been opened or extended by the largest Russian companies abroad. 82% of staff size gain was provided by the companies with the turnover over $20 million (69% of staff size gain fall on the companies with the turnover over $100 million).

In 2012, 16% of companies employed nobody, almost as many as in 2011 (15%). In 2010 there were much more such companies – 28%, and before the crisis – 5-10%.

The staff turnover rate practically did not change neither. It was 6% in 2011 and following the results of 2012 it was about the same (6.1%).This figure remains at a rather low level in comparison to other countries that is one of competitive strengths of Russian software industry.

The steadiness of these two figures means stabilization of the situation in the Russian labor market. However, companies with the head offices outside of Moscow and St. Petersburg had considerably increased staff turnover rates. The total number of these companies is not so big to affect the average staff turnover of all respondent companies. Nevertheless, it can be assumed that the fight for manpower in regions became more desperate.

In the last several years, the labor market of St. Petersburg was the most adverse (judging by the staff turnover and by the share of companies that did not recruit any employees). This market keeps the same position in 2012 but it did not stand out against other regions (except for Ural).

St. Petersburg also lost its unambiguous leadership by the number of employed university graduates. Now this figure is approximately identical for St. Petersburg, Siberia region and “Other cities”. It is much higher than the Ural figure and twice lower than the Moscow one. The respondent companies’ staff size increased by 4.6% thanks to engaging recent students.

The smallest companies (with the turnover less than $0.5 million) considerably reduced their activity in the labor market and recently found themselves in the most difficult situation in comparison to other companies. The non-competitive status of small companies is

48. Respondent companies' activity in the labor market depending on their location

	Moscow	St. Petersburg	Siberia	Ural	Other towns
Zero recruitment	29%	11%	13%	0%	12%
Staff turnover indicator	4.4%	9.7%	11.9%	6.4%	9.3%

49. Share of the companies that did not recruit new employees in 2008-2012, depending on the company turnover

	Over $100 million	From $20 million to $100 million	Over $20 million	From $4 million to $20 million	from $0.5 million to $4 million	Less than $0.5 million
2008	-	-	0%	0%	10%	14%
2009	-	-	0%	14%	18%	46%
2010	-	-	18%	13%	26%	42%
2011	-	-	0%	5%	19%	45%
2012	0%	9%	-	11%	8%	59%

50. Annual figure of the employee turnover, depending on company size

	Over $100 million	From $20 million to $100 million	Over $20 million	From $4 million to $20 million	from $0.5 million to $4 million	Less than $0.5 million
2008	-	-	10%	11%	6%	7%
2009	-	-	6%	9%	3%	12%
2010	-	-	4.3%	4.8%	4.4%	3.2%
2011	-	-	4.4%	10.3%	5.4%	6.6%
2012	4.56%	8.29%	-	9.02%	8.41%	4.76%

primarily caused by the fact that they cannot enjoy the incentives in the social taxation, which are being currently used by the companies with the staff size over 30 employees. If the decision on a decrease in the staff size threshold for IT companies is not adopted in 2013, we can expect not only stagnation of headcount and turnover for small companies but also an actual decrease in these figures.

In 2012 larger enterprises recruited new staff and lost employees approximately at the same level as in 2011.

In the previous years there was a strict rule according to which – more company's export share in its aggregate income was – more active in the labor market the company was. Following the results of 2012 this rule was broken. There were no dependencies between the shares of companies that did not employ new staff and their preferential orientation towards the foreign or Russian market.

In 2012 companies that obtained over a half of their revenue from software export recruited Java and C# developers, as well as ASP.Net/MSSQL web programmers 2-3 times more often than others. PHP/MySQL web programmers were more demanded for operation in the domestic market than for export.

C/C++ and C# developers were the most demanded staff in 2012. Among other

51. Most popular developers that were employed by respondent companies in 2008-2012

	2008	2009	2010	2011	2012
Developer (C/C++)	42%	30%	25%	29%	26%
Developer (Java)	29%	29%	21%	30%	17%
Developer (C#)	20%	19%	18%	28%	23%
Developer (DB)	4%	5%	2%	4%	4%
Test engineer	9%	14%	13%	22%	16%
Web programmer (PHP/MySQL)	21%	11%	13%	13%	18%
Web-programmer (ASP.Net/MS SQL)	16%	7%	4%	15%	13%
System administrator (Win)	2%	4%	7%	8%	6%
System administrator (UNIX)	2%	4%	2%	5%	2%
Others	8%	16%	11%	19%	15%
Average quantity of mentioned engineers	1.53	1.39	1.16	1.73	1.4

52. Positions for which the respondent companies hired employees in 2012 (depending on company turnover)

	Over $100 million	From $20 million to $100 million	from $4 million to $20 million	from $0.5 million to $4 million	Less than $0.5 million
Developer (C/C++)	40%	55%	44%	22%	9%
Developer (Java)	40%	36%	22%	15%	5%
Developer (C#)	40%	27%	44%	20%	5%
Developer (DB)	0%	0%	17%	3%	0%
Test engineer	40%	45%	17%	13%	9%
Web programmer (PHP/MySQL)	0%	36%	11%	21%	9%
Web-programmer (ASP.Net/MS SQL)	20%	18%	22%	12%	5%
System administrator (Win)	0%	18%	6%	6%	0%
System administrator (UNIX)	0%	0%	6%	1%	0%
Others	0%	0%	17%	21%	9%
Average quantity of mentioned engineers	1.53	1.39	1.16	1.73	1.4

demanded experts – 1C programmers and technical support engineers (4 times each) were mentioned by the respondents. Database administrators, project managers, 1C system administrators, software deployment and maintenance engineers, Ruby and Delphi programmers, sales managers and consultants were also wanted. Application developers for mobile devices (under Android and iOS) were mentioned mostly in the category of “other demanded engineers”.

In May 2013, the RUSSOFT Association and the TEAM FORCE out-staffing company signed a Cooperation Agreement regarding development and operation of a system for exchange information about temporarily un-

53. Distribution of positions for which the respondent companies hired employees in 2012, depending on the respondent's location

	Moscow	St. Petersburg	Siberia	Ural	Other towns
Developer (C/C++)	21%	31%	25%	25%	27%
Developer (Java)	17%	26%	19%	25%	7%
Developer (C#)	10%	26%	25%	13%	32%
Developer (DB)	7%	6%	0%	0%	2%
Test engineer	17%	26%	6%	25%	10%
Web programmer (PHP/MySQL)	17%	20%	25%	0%	20%
Web programmer (ASP.Net/MS SQL)	19%	3%	6%	0%	20%
System administrator (Win)	12%	3%	0%	0%	5%
System administrator (UNIX)	2%	0%	0%	0%	2%

committed developer resources. Initially, the system was created by Artezio directly for the RUSSOFT Association website and represented an online service to exchange information about temporarily free labor resources between the RUSSOFT member companies.

In view of the TEAM FORCE team's experience in development and administration of the SmartSAP portal, RUSSOFT made a decision to place the system under management of TEAM FORCE Group.

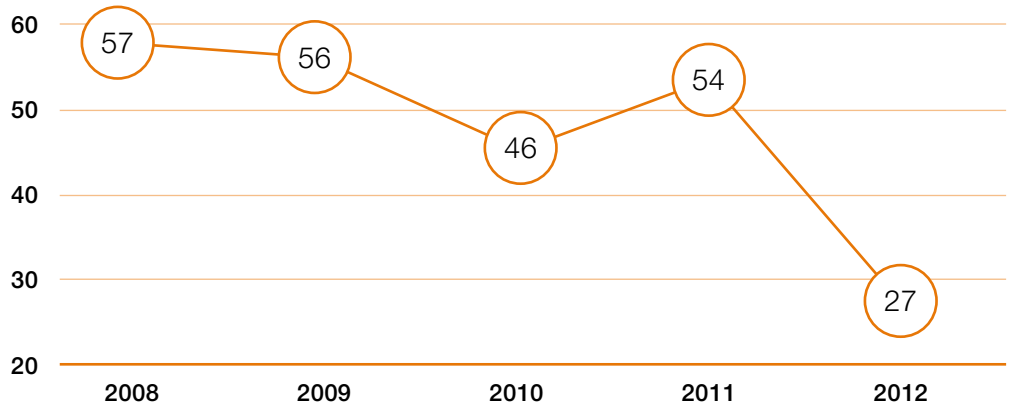
Shortage of engineers

The number of companies that do not suffer for acute staff shortage considerably reduced for the last year. There are only 27% of such companies left – but in the last several years their number was at the level of 45%-55%. Among medium and large enterprises (with the turnover over $4 million), which account for 90% of all respondent companies' staff, this indicator was equal to 12% only.

It is remarkable that 59% of companies with turnover less than $0.5 million are not pressed for staff shortage. The reason is that in most cases they have to solve the problem of survival and do not know how to pay the existing employees. Also, staff shortage is not a problem for some individual successful companies (mainly for the producers of licensed software who are capable to increase sales without staff expansion) and for international corporations' R&D centers. It can be assumed that their immunity against staff shortage is a matter of time. It should be noted that all largest (with the turnover more than $100 million) and quickly growing companies experience staff shortage.

The deficit of developers is characterized in particular by the so called hh.index – the ratio between the number of CVs and vacancies published on the hh.ru and career.ru websites. In the autumn of 2012 this index

54. Share of the companies that do not feel an acute shortage of developers, %



55. Share of companies with turnover over $4 million dollars experienced an acute lack of following developers

Developer (C/C++)	15%
Developer (Java)	41%
Developer (C#)	21%
Developer (DB)	12%
Test engineer	12%
Web programmer (PHP/MySQL)	12%
Web programmer (ASP.Net/MS SQL)	26%
System administrator (Win)	3%
System administrator (UNIX)	0%
Others	24%

for programmers was 1.4 (there were 1-2 CVs per one vacancy, whereas for the entire Russian labor market the ratio was equal to 3.2 (there were over 3 CVs per one vacancy). Thus, applicants for software developers positions face practically no competition, and in this case employers have no choice. This situation in the labor market results in an unjustified salary growth and in a certain staff turnover growth.

According to the Superjob research center, the number of CVs in the "Software development" section increased by 28% and the number of vacancies – by 62% from April 2012 to April 2013.

According to the ANCHOR High Technologies data, in 2012 there was a serious problem with recruitment of test engineers in Moscow. Although they had obviously overestimated demands, the employer was forced to accede to their requests.

Like in the previous two years, most of companies having the turnover over $4 million experienced a lack of Java developers (35%) and of C# developers (23%).

The data of recruiting agencies and job search portals are generally agreed with our survey results. Considerable discrepancies are explained, first of all, by a different selection of interrogated employers as well as by use of different survey techniques.

For example, according to the Superjob.ru data, 1C, C++, PHP and Java programmers were the most demanded IT engineers in Russia in 2012. Recruitment of Ruby programmers was the most difficult task (there were about three vacancies per one applicant). However, the Superjob.ru analysts note that the share of requests for

56. Distribution of positions for which the acute lack of developers is felt depending on the respondents' location (reference rate)

	Moscow	St. Petersburg	Siberia	Ural	Other towns
Developer (C/C++)	12%	11%	19%	13%	17%
Developer (Java)	21%	29%	19%	38%	10%
Developer (C#)	2%	14%	31%	0%	27%
Developer (DB)	7%	9%	0%	0%	0%
Test engineer	7%	9%	0%	0%	5%
Web programmer (PHP/MySQL)	12%	11%	19%	13%	17%
Web programmer (ASP.Net/MS SQL)	10%	9%	6%	13%	17%
System administrator (Win)	0%	0%	0%	0%	2%
System administrator (UNIX)	0%	3%	0%	0%	0%

this language does not exceed 1% of all requests.

According to HeadHunter, the programmers with 1 to 3 years of experience are the most in-demand (71% of vacancies on the hh.ru website). Demand for developers with experience from 3 to 6 years was 20%, and the share of those with more than 6 year's experience was 1% of all vacancies. There were 8% of vacancies suitable for developers without experience.

Foreign language skills

The surveys undertaken within the last 5 years allow us to state that there is an increase in the number of developers (both in absolute and in relative values) who have a good command of English. Their share grew from 65% to 72%. Other sources confirm this trend. It comes very often now that organizers of IT conferences in Russia do not engage interpreters to translate speeches of foreign English-speaking contributors as they believe (not without reason) that almost all engineers who deal with imported software or who sell their services and solutions in foreign markets have a good command of English.

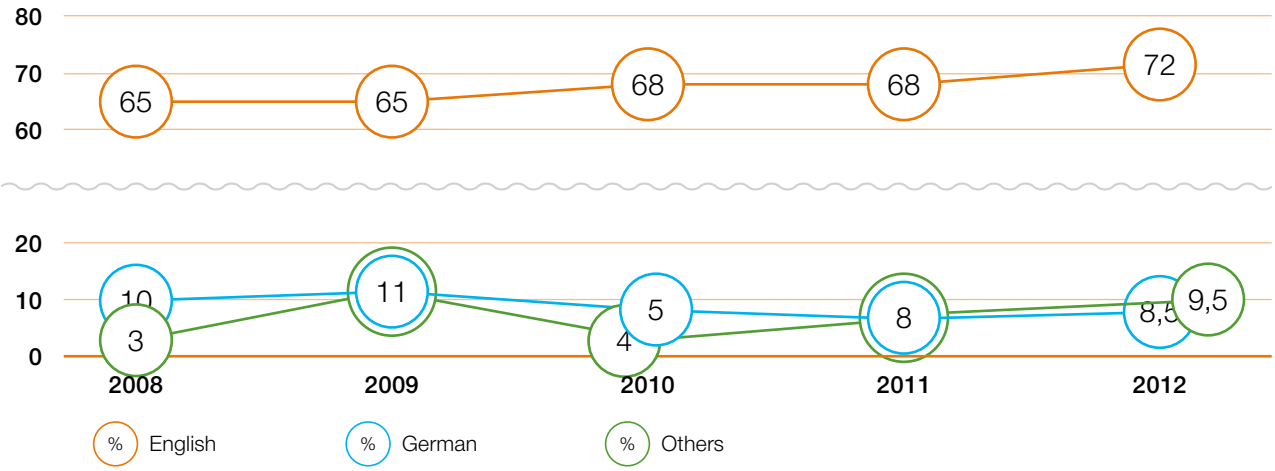
At the same time, according to the Superjob research center, only 15% of software developers specify the 'fluent' or 'conversational' level of English in their CVs, 50% declare knowledge of language at the level of technical documentation reading, 28% admit that they have basic skills only and 7% do not specify their level of proficiency in English.

According to ANCHOR High Technologies, the situation with knowledge of English is much better: 64% of all developers (included in the recruiting agency's database) have a good command of English or are fluent in English.

Considerable differences in the data of two companies can be explained by the fact that they cover absolutely different audiences. It is arguable that Superjob's audience is much wider, whereas ANCHOR is more oriented towards recruiting of personnel for international companies and for Russian exporters. Besides, the knowledge of language at the level of technical documentation can be considered as a good command of language.

Concerning the German language, we cannot state any unambiguous growth. Most

51. Most popular developers that were employed by respondent companies in 2008-2012, %



likely, the share of German-speaking developers in the in interrogated export companies almost did not change and remained at the level of 8-10% within the last 5 years.

According to this year's data, we can assume that the number of employees who have good command of other languages has increased.However, from year to year this figure varies widely that is indicative of a fairly big measurement error.

An increase in the number of developers capable to speak other languages can be explained by the change of Russian software exporters' geographical priorities (entrance to the markets of South-East Asia, Latin America, and the Middle East). However, in most cases, knowledge of other foreign languages is desirable but not crucial. As a rule, knowledge of English is sufficient for communication with foreign customers, while localization and promotion can be performed by local partners.

Despite an obvious progress in foreign languages proficiency, many problems remain unsolved. There are not enough English-speaking employees in small and in regional companies. An increase in the number of such employees is provided by the largest companies located in Moscow and St. Petersburg.Partly, this happens because they pay for their employees' foreign language teaching. However, this growth is mainly connected to the fact that companies from the two capitals have an opportunity to poach the best developers from regions and from small companies.

The growth of the share of English-speaking employees in IT companies is not caused by improvements in the Russian state educational system. People often study foreign languages at their own expense or at their employers' expense, attending language courses and engaging teachers.

As a rule, skilled English teachers do not tend to work at schools and universities because of the low salary level in the state educational institutions in Russia. This problem should be solved by the government. Otherwise, the high-technology sector of economy will not fit the requirements of the international competition, neither it will correspond to the potential of engineering resources available in Russia.

It is especially important to improve the language teaching level in regional universities and schools because many of these institutions provide a high level of education in the field of mathematical and technical sciences but cannot provide their graduates with competitive positions with respect to foreign languages skills.

Russia is not at the bottom of the English proficiency level list, but it is in the second half of the world ratings which cover several

58. Share of the staff with good knowledge of foreign languages, depending on company location

	English	German	Others
Moscow	80%	12%	14%
St. Petersburg	76%	2%	4%
Siberia	62%	4%	1%
Ural	40%	2%	2%
Other towns	39%	3%	0,2%

59. Share of the staff with good knowledge of foreign languages, depending on company turnover

	Over $100 million	From $20 million to $100 million	From $4 million to $20 million	from $0.5 million to $4 million	Less than $0.5 million
English	79%	62%	73%	48%	39%
German	12%	3%	3%	3%	3%
Others	14%	3%	2%	0.4%	4%

dozens of countries. For example, according to GlobalEnglish company research where the level of proficiency in business English was defined, Russia received 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 the Philippines (7.11), India (5.57) and some other large countries. Sweden and Finland who take the top positions in the English knowledge ratings should be a reference point for Russia. In many respects, the high percentage of English-speaking population in these countries is ensured by the countries' integration in the world economy and by their considerable achievements in the field of high technologies. In a small city of Salo (Finland) with the population about 55 thousand people, there is a great number of the companies (large, medium, and very small) that export their hi-tech products to several dozens of countries. We cannot say that all these companies enjoy up-to-date production lines. However, they achieved very good results thanks to the state support system as well as to the knowledge of the global market which is largely provided by a high proficiency in English.

Venture investors are debating on the reasons why Russian startups often work over development of solutions without any idea of their potential implementation in the global market. Some analysts consider that the main reason lies in their poor knowledge of English. Others see the reason in the unwillingness or in the inability to learn the situation in the global market. Nevertheless, it is difficult to deny that an insufficient level of proficiency in English undermines the ability of Russian business to create and to provide competitive solutions and services worldwide, and furthermore, blocks their promotion in the global market. The unwillingness to monitor the global trends can be mainly caused by weak competence in languages.

Salary

According to the present survey, the average salary of software developers (including managers) in 2012 was $2,300 (71,300 RUR). It grew up approximately by 7-8%. Following the results of 2011 (when the growth was 18%) we can state a certain decrease in the remuneration growth rates.

The data on salary obtained as a result of the present survey are agreed with information received from recruiting agencies. The existing diversity is explained by the difference of covered audience, by compared periods and by calculation techniques. For example, according to the Superjob research center, salary offers increased by 12% from April 2012 to April 2013.It does not contradict the growth of 7-8% mentioned above. The fact is that Superjob determined not the average pay per year, but salary offers at a specific point in time. Besides, their survey covered not only exporters but all Russian IT employers.In addition, the comparison time frames do not match in different studies.

According to CNews Analytics research (its results were published in the autumn of 2012), on the average software developers receive 83.8 thousand RUR per month. Similar data is provided by the Rabota.ru resource – 75-80 thousand RUR. HeadHunter recruiting company, for some reason, named a figure of 59 thousand RUR following the results of the first half of 2012. But a Russian programmer's average salary around 70 thousand RUR looks more realistic. However, this figure is only useful for determination of general trends in the entire labor market of Russia, as the pay level dispersion depending on the developer's level and on city is quite great.

The gap in the pay level among Moscow, St. Petersburg, and other Russian cities did not reduce in the last 2-3 years. According to the survey of software export companies, there is no great difference by remuneration of experienced developers and managers between the two capitals (the difference is 11-13%). However, we should consider that Moscow companies have the significant number of employees who work in other cities and countries (where the pay level is often much lower than in Moscow and St. Petersburg).

The data provided by recruiting agencies and by analysis of job offers on the Internet give evidence of a larger difference in salaries between the two capitals. According to information of the Yandex.Job job search system, Java programmer's average salary in Moscow is 98 thousand RUR(in St. Petersburg, it is 20% less, and in Novosibirsk – 38% less).

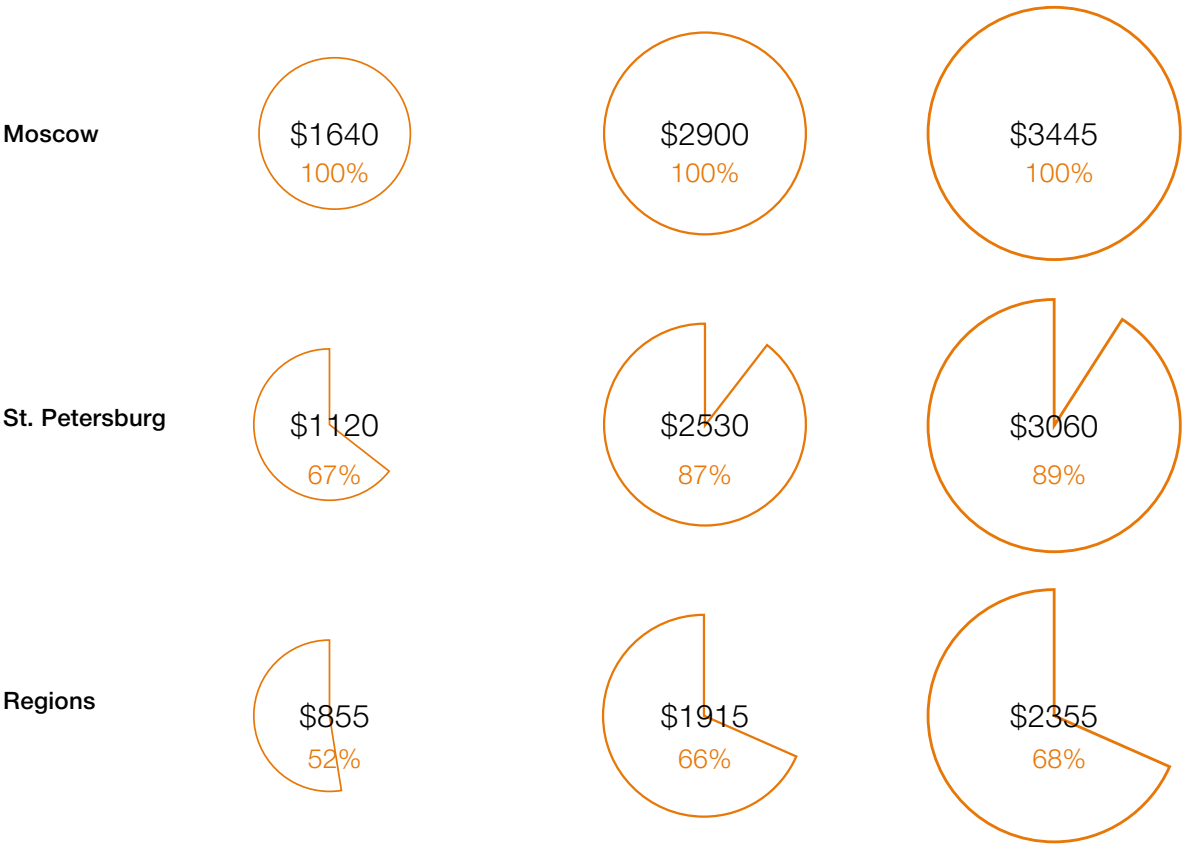
Approximately the same gap was determined by the CNews Analytics.

60. Average monthly salary of IT employees in 2012

61. Average monthly salary of novice developers in 2012, depending on company location

62. Average monthly salary of experienced developers in 2012, depending on company location

63. Average monthly salary of managers in 2012, depending on company location



64. Comparison of software developers average monthly salary in 2012 in companies with different incomes

Over $100 million	From $20 million to $100 million	From $4 million to $20 million	From $0.5 million to $4 million	Less than $0.5 million
100%	110%	105%	73%	56%

The HeadHunter data on Java programmers shows a larger gap between the capital and other cities. At the end of 2012, they were offered the average monthly salary of 107.7 thousand RUR in Moscow. In St. Petersburg, the figure was 30% less, in Novosibirsk – 44% less, and in Kazan – 58% less.

The change in the formulation of a question about the price of man-hour work provided analysts with more correct data on the cost of services provided by respondent outsourcing service providers. Earlier, the majority of respondents found it difficult to answer this question or cited an unrealistic figure. As a result, we had to calculate the average cost based on a small number of companies that did not make sense because of a high measurement error.

This year, there are much more answers to the question about the price of a man-hour service than in last few years. However, the range of specified values is still too wide which an important gap in man-hour prices between different locations and also testifies that a part of respondents strongly underestimated or overestimated their figures (as a rule, they are small companies which do not markedly affect the average level). In such conditions it is more practical to look at data of man-hour price of services in different regions and in companies with different turnover.

It is remarkable that the employee's man-hour price in large service companies is lower than in medium-sized ones, whereas the pay level in large companies is higher. This contradiction can be explained by the fact that large service providers reduce the price of their services for the customer due to use of developer labor in other countries, while in the questionnaire they specify the pay level in Russia.

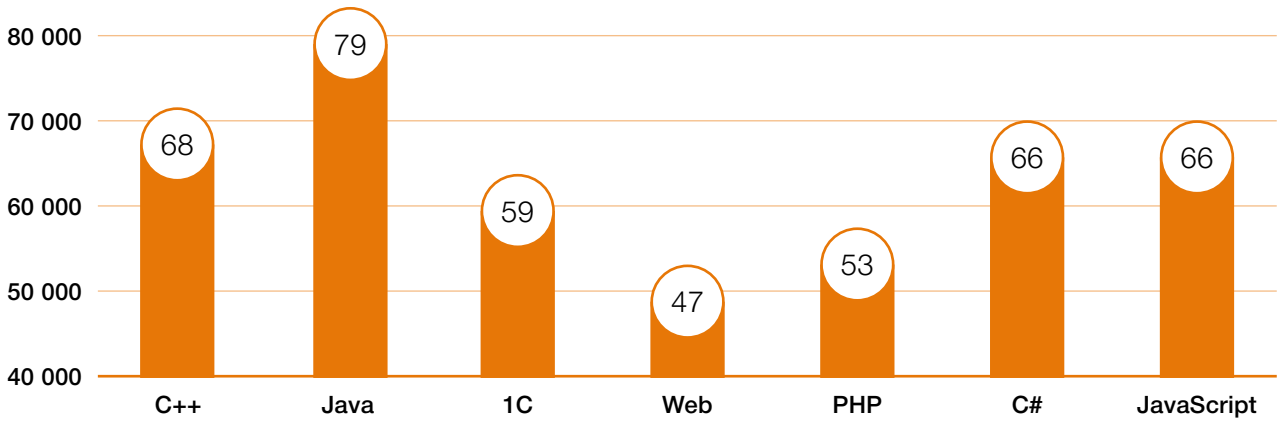
It is worthy of note that the man-hour price and the average salary almost do not depend on the share of export in the consolidated revenues. In the companies with the export share that ensures over 50% of the turnover, the expenses on personnel are only 4-5% higher than in the companies that gain the most part of their income from sales in the domestic market. A few years ago, the difference was greater that was explained by higher requirements to employees which work for export, as well as by higher financial

65. Average pay level of software developers in different regions of Russia, depending on experience (thousand rubles)

	0-3 years	3-5 years	5-10 years	Over 10 years
Russia	54.5	74.3	92.4	114.0
Moscow	71.6	92.1	109.2	125.0
St. Petersburg	44.7	67.5	84.6	101.4
Other cities	38.8	54.7	70.5	88.3

Source: Yandex.Job

66. Average salary of programmers in Russia at the beginning of summer of 2013 (thousand rubles)



67. Profile man-hour price, offered for the customer, depending on respondent company location (in USA)

	Moscow	St. Petersburg	Regions
Software development (beginner)	34	26	23
Software development (experienced)	48	38	33
Software development (team manager)	56	49	35
Software testing (experienced)	47	32	23

68. Man-hour price for the customer, depending on respondent company export share (in USA)

	Less than 50%	Over 50%
Software development (beginner)	25	26
Software development (experienced)	37	36
Software development (team manager)	39	43
Software testing (experienced)	27	31

69. Profile man-hour price for the customer, depending on respondent company turnover (in USA)

	Over $100 million	From $20 million to $100 million	From $4 million to $20 million	from $0.5 million to $4 million	Less than $0.5 million
Software development (beginner)	19	24	31	31	30
Software development (experienced)	25	36	40	46	37
Software development (team manager)	25	40	47	51	42
Software testing (experienced)	17	27	39	38	42

solvency of foreign customers. The situation has changed thanks to a considerable increase in Russian customers' financial solvency and to the growth of the market share of the CIS countries which do not greatly differ from Russia (in any case, it is not essential to know foreign languages in order to work with customers in the neighboring countries).

Staff training. Universities

Due to the staff shortage, the majority of companies actively recruit developers without experience (university graduates). However, recent students' lack of experience is conditional as many of them undertake internships or even participate in commercial projects in parallel with university degree courses.

Now, large enterprises tend to recruit university graduates more actively than small companies. A few years ago, small enterprises employed recent students more often and the leading software companies preferred experienced developers.

In 2012 university graduates obtained employment in 71% of respondent companies (thus several more percent of respondents, most likely, simply did not specified the number of recruited young engineers although they hired them). For the enterprises with the turnover over $4 million this figure is 81% and for those with the turnover less than $4 million – 68%.

In 2012 the respondent companies' staff increased thanks to university graduates by 4.6%. It is slightly more than a year before (4.1%).

Companies that are oriented towards the Russian market employ newcomers more willingly. In 2012 the staff of companies with the export share lower than 50%, increased thanks to the graduates by 8.3% while that of those with the export share over 50% – by 29%. Nearly the same ratio was observed following the results of 2011. It is explained by the fact that exporters still have higher requirements to staff training and to work experience.

Like a year ago, Moscow companies employed the least number of graduates because they have more opportunities to engage the most skilled developers from regions and from abroad (particularly, hiring them for their offshore development centers). Moscow attracts programmers from regions thanks to the highest salaries in Russia.

Following the results of surveys for the last 5 years we can say that the share of companies that cooperate with higher education institutions has been gradually reducing. For the last five years it decreased from 58% to 47% (generally at the expense of the smallest companies that encounter difficulties in labor market competition with larger companies). Many small companies cannot afford to expand their staff, therefore they are not interested in cooperation with higher education institutions.

Besides, in recent years it became much harder even for medium companies and even

70. Share of the university graduates employed in 2012 in companies' staff

Moscow	2.4%
St. Petersburg	9%
Siberia	13%
Ural region	4.6%
Other cities	8.7%

for quite large foreign companies to harmonize relations with the leading universities, which more and more realize their position as a supplier of super-valuable resources.

During the last 5 years the main form of cooperation with universities was the internship of students in companies. The share of those who apply this model almost did not change and is equal now to 40%. Among other forms of cooperation respondents mentioned the following: creation of specialized basic chairs and laboratories in universities, providing free software (or software at a preferential price) for universities, offering free training courses and mentoring programs for students, implementation of joint educational projects, holding career events and job fairs, supporting graduates' thesis contests and programming competitions, monitoring of student's projects with the company' staff guidance, participation in development of a training course for testers.

According to the Career.ru poll (the portal belongs to the HeadHunter company), 30% of companies cooperating with higher education institutions or colleges experience difficulties as educational institutions come into contact reluctantly. 49% of respondents admit that the process is very difficult to be organized and 38% of companies cannot easily find resources in the universities to train inexperienced graduates.

The quality of engineers is affected by the so-called 'demographic hole' caused by a sharp decrease in the number of schools graduates due to the decline of the birth-rate during the 'perestroika' period in the 1990ties (some growth of the number of school graduates is expected not earlier than in 2018).

Entrance to universities became easier and the threat of expel decreased. Therefore both – higher education institutions and young people have fewer stimuli to improve the quality of training. By 2010 the fall of graduates' and student's educational level became obvious almost for all employers.

Certainly it only concerns the average level of education which is slowly decreasing. At the same time, there are some positive changes. For example, the state financial support to the leading technical universities has improved. In particular, universities received grants which allowed them to invite well-known professors from abroad. Furthermore, judging by achievements of Russian students and graduates in international competitions in software engineering, significant deterioration in comparison to foreign universities can not be observed. This can be partly explained by the fact that the

71. Cooperation between companies and universities

	2008	2009	2010	2011	2012
Students training	42%	41%	41%	37%	39%
Graduates employment	34%	23%	26%	32%	31%
Courses for employees	24%	21%	18%	17%	19%
Others	1%	14%	10%	17%	12%
Do not cooperate	42%	48%	48%	48%	53%

72. Cooperation between companies and universities, depending on companies' turnover (according to the 2013 survey)

	Over $100 million	From $20 million to $100 million	From $4 million to $20 million	from $0.5 million to $4 million	Less than $0.5 million
Students training	100%	82%	50%	36%	9%
Graduates employment	100%	55%	44%	29%	0%
Courses for employees	40%	64%	33%	13%	9%
Others	20%	27%	22%	10%	0%
Do not cooperate	0%	18%	44%	53%	82%

level of IT-education is gradually decreasing in most countries (especially in the West).

However, an increase in the state financial support still does not allow involving young talented teachers in the educational process in universities in the quantity necessary to retain the existing quality of education. The salary at universities remains rather low and many things stay up thanks to the enthusiasts. But these enthusiasts retire over time or switch to a better-paid job by family circumstances. The same things happen with teachers of Physics and Mathematics in the secondary schools, who should provide a basic educational level to future students. Universities are unable to train excellent engineers without such basic knowledge. The government of Russia sets the task to increase the university professors' and school teachers' salary up to the average level of the region where the educational institution is located. However, such increase is materialized too slowly. Besides, providing the pay rate at the level of the average regional salary is obviously not enough to involve the best teachers and professors.

Russian technical universities are presented in the international ratings of universities extremely poorly (or they are placed far outside the first hundred of universities in the ratings). One of the main reasons is a small volume of R&D performed by higher education institutions within contracts with private business. Another reason is that higher education institutions have not learned yet how to work with rating agencies. As a result, analysts in the Rating Agencies do not have enough information on higher education in Russia. The situation may change in the future as the Russian government is in train of implementing a series of measures for supporting their accession to the Universities' ratings. 40 billion rubles are to be provided in the budget of Russia in the next 4 years for this purpose. A part of this money has been already allocated to 15 Russian universities who won in a tender. Each of them will receive about 600 million rubles ($20 million) for these purposes in 2013.

So far, it is difficult to compare Russian and foreign universities by key indicators which are being used in the international ratings.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 (SPNRU ITMO) is the best in the world by their results in participation in the ACM International Collegiate Programming Contests during the last decade. St. Petersburg State University is the first 10 and some other Russian higher education institutions are in the top twenty in the rating prepared by organizers of this competition.

At the beginning of July 2013 the regular ACM ICPC contest first took place in Russia

73. Medal places of the Russian universities teams at the Student World Cup in Programming (ACM International Collegiate Programming Contest) from 1999 to 2013*

		Years 1999-2008	2009	2010	2011	2012	2013
1	Saint Petersburg State University of Information Technologies, Mechanics and Optics	3, 5, 3, 3, 1, 3, 3, 1	1			1	1
2	St. Petersburg State University	9, 1, 1, 6, 11	3	9	4		5
3	Moscow State University	9, 2, 2, 9, 10, 5		2	10	10	10
4	Saratov State University	6, 7, 1, 6	4	7	6		
5	Izhevsk State University	8, 9, 3					
6	Altai State Technical University	3	8				
7	Moscow Institute of Physics and Technology					3	
8	Perm State University	4					13
9	Petrozavodsk State University	13.1		5			
10	Novosibirsk State University	5					
11	Nizhny Novgorod State University				5		
12	Ufa State Aviation Technical University	10					
13	Ural State University			13	11		
	Total number of prizewinners	from 2 to 5 (in 2006-2008)	4	5	5	3	4

* The quantity of medal places varied from 10 to 13 during this period

Source: ACM International Collegiate Programming Contest, the rating is compiled by the RUSSOFT Association.

(in St. Petersburg). SPNRU ITMO was the host party of this prestigious competition and the university's team once again won the top place in the overall ranking. This university became the fivefold world champion. No other team has won so many times for the entire 37-year history of this competition. That said students of SPNRU ITMO and other Russian universities started to participate in the ACM International Programming Contest only about 15 years ago.

Some more universities also take high places in this Contest on a regular basis. In the last 5 years, there have usually been at least 4 Russian teams among 12-13 prize-winners of the contest. Apart from SPNRU ITMO with their gold medal, one silver and two bronze medals were awarded to the

Russian teams in 2013 (St. Petersburg State University – the 5th absolute place, Moscow State University – the 10th place, Perm State University – the 13th place). Three more teams of Russian universities were very close to the prize-winners: Altai State Technical University, Ufa State Aviation Technical University and Ural Federal University who occupied the 14th-16th places. Totally teams of 13 Russian universities have become prize-winners of the ACM ICPC contest within their 15 years of participation in this Contest.

Such competitions in many respects reflect the quality of programmer training. Judging by their results, programmer training in Russia is the best in the world, although Chinese universities achieved a similar progress in the last decade. Among leaders and prize-winners of the Contest there have been also teams from Poland, Belarus, and Ukraine but these countries do not have as many strong teams as Russia and China. Individual representatives of Western Europe and the USA sometimes also appear among the top teams.

Not always champions and prizewinners on sports programming reach the outstanding results in work in commercial and state structures. However, they are able to meet the most complex challenges in their R&D and in the labor activities that is being strongly confirmed by the fact that many Russian ACM contest champions and prize-winners established successful software companies or work at key C-positions in these companies (DevExperts, SPb Software, Yota, VKontakte).

Russians also win in other competitions in programming and in informatics. In the last three years they steadily became winners of the Facebook Hacker Cup contest. In 2013 as well as two years earlier Pyotr Mitrichev won these competitions, while Roman Andreyev from St. Petersburg State University was the winner the last year.

Sergey Glazunov, student of Tyumen State University, became the first one who found vulnerabilities in the Chrome browser within the Google Pwnium competition and was awarded the first prize – $60,000 in 2012. He also earned $50,000 from participating in the similar competition in 2011.

Egor Kulikov, an employee of the Yandex company, became the winner of the most prestigious international individual competition among programmers – TopCoder Open 2012.

At the 24th International Olympiad in Informatics, which was held in Italy in September 2012, the victory was shared by the Russian national team and by the national team of China which collected four gold medals each. During these competition it was decided to hold the International Olympiad in Informatics (IOI) 2016 in Russia – in Innopolis just being built near Kazan.

It becomes trendy to hold in Russia different competitions in programming and informatics, as well as various international contests in the field of innovations. Only several days after ACM ICPC contest, the world final of the Imagine Cup (an international contest of student's innovative projects which was organized by the Microsoft) took place in St. Petersburg, and also for the first time in Russia. Next year, ACM ICPC will take place in Yekaterinburg, Russia. Holding similar competitions in Russian cities promotes the 'Russia' brand in the world market of high technologies, as well as contributes to the popularity of highly demanded IT-profession within the country.

Achievements of students' performance in the programming contests give an idea of the quality of IT-education at Russian universities. However, it is more important to estimate this quality by the degree of employer satisfaction. The university rating by this indicator would not be completely objective neither, but comparison of universities by different criteria allows drawing more reasonable conclusions concerning their effectiveness for the industry and for the Economy altogether.

More than a year ago, the research center of the Superjob.ru recruiting portal issued a

74. The Superjob.ru recruiting portal rating of higher education institutions

Place	Name	The average salary of graduates having positions according to the acquired specialty, thousands of 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

rating of universities that was based on the evaluation of how successful their graduates were in getting a job in Moscow (first of all, the salary level was estimated). Surely, universities from Moscow got an advantage in this rating, but still, it provided sound basic data. The quality of training was estimated for all specialties, not just for the IT alone.

The rating of RUSSOFT Association is created based on the poll of software exporters and, therefore reflects the view of software business' executives as to how successfully universities train personnel for the software industry. However, it is also not beyond reproach.

Since the position of a university in this rating depends to a great extent on the number of the companies representing the specific city, first places are usually occupied by 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 in St. Petersburg.

Nevertheless, even taking aforesaid note into account, universities ranking reflects the level of programmers quality especially when taking into consideration the range in which the specific university is situated (3-5 nearing places).

In the total, respondents have mentioned 228 universities whose graduates have been mentioned as mostly demanded among IT companies in the region. If repetitions are ex-

Place	Name	The average salary of graduates having positions according to the acquired specialty, thousands of RUR
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 Polytechnic 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 Electronic Technical 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	Saint Petersburg State University of Information Technologies, Mechanics and Optics	60

cluded, employers have evaluated more than 80 higher educational institutions.

St. Petersburg National Research University of Information Technologies, Mechanics and Optics, occupies the first places in two ratings. It is also a leader by one more indicator – by the share of graduates who found a job according to their university specialty (76%). In the majority of other universities which train software developers this share is much less – about 50%. Experts consider that 15-20% of university graduates are ready to work for software companies right after the graduation. Other 30-35% of graduates need to continue their studies (to make them more practical). Thus, a half of graduates who got degree of a software developer are unable to immediately work in software companies, although there is a huge staff shortage. Therefore there is a great potential in the High School for increasing the number of graduates who are capable to satisfy employers. First of all, it is necessary to create stimuli to encourage young and perspective people to work in the educational system, creating competition for university professor' and school informatics teacher's job positions.

The post graduate education system (the career development and staff retraining system) created by the organized business may also ensure an increase in the Russian labor market supply. For example, St. Petersburg Academy of Postgraduate IT Education (SPb ITAPO) was opened in 2013. Top managers of Lanit-Tercom, SoftJoys and First Line Soft-

75. Ranking of the universities whose graduates are in great demand among the software companies

Place	Name	2010	2011	2012	For the last three years
1	Saint Petersburg State University of Information Technologies, Mechanics and Optics	26	20	19	65
2	Bauman Moscow State Technical University	28	17	19	64
3	St. Petersburg State University	20	22	19	61
4	Moscow State University	23	10	17	50
5	Moscow Institute of Physics and Technology	18	15	12	45
6	St. Petersburg State Polytechnic University	21	10	12	43
7	St. Petersburg State Electronic Technical University	19	9	10	38
8	Moscow Engineering Physics Institute	8	6	8	22
9	Novosibirsk State University	7	2	9	18
10	Southern Federal University	3	3	6	12
11	Novosibirsk State Technical University	-	4	5	9
12	St. Petersburg State University of Space Instrumentation	6	2	2	10
13	Moscow Aviation Institute	6	2	2	10
14	St. Petersburg State Institute of Technology (Technical University)	-	5	3	8
15	Baltic State Technical University	5	3	-	8
16	St. Petersburg State University of Telecommunications named after Prof. Bonch-Bruevich	3	2	2	7
17-20	Nizhny Novgorod State University	-	2	3	5
17-20	Omsk State University	-	2	3	5
17-20	Omsk State University	1	1	3	5
17-20	Voronezh State University	1	1	3	5
21	South Ural State University	2	2	1	5
22-23	Ulyanovsk State University	0	1	3	4
22-23	Omsk State Technical University	0	1	3	4
24	Don State Technical University	-	2	2	4
25	Moscow State University of Economy, Statistics and Informatics	-	2	1	3
26-27	Samara State Space University	-	3	-	3
26-27	Yaroslavl State University	-	3	-	3

Source: RUSSOFT Association

ware became the initiators of the Academy creation. Within two years about twenty chairs offering modular programs for retraining of professionals in various IT areas – from programming and software testing to application programs of the city/enterprise level – are expected to be established on the basis of existing training centers in the leading market-players.

Situation on the labor market in Russia and in other countries

The Russian programmers' labor cost which rapidly grew for the last decade did not promote competitiveness of Russia in the global market of software and software development services. Due to a rapid growth of salary, Russian software companies' export (in any case – the export of software development services) could have reduced long ago if the same tendencies did not take place almost around the world. Shortage of programmers is a global problem of the world economy. The labor market supply goes behind the growing demand for software developers In the majority of developed countries.

Russia is experiencing right now a 'demographic hole' that is caused by a great reduction of the birth rate about 20 years ago. But the reduction of the young people share in the overall population is observed in the economically developed countries as well, even if it is a time-expanded process. In the states with high living standards There is a problem of diminishing number of applicants in technical colleges and universities in the West, not only because of the birth rate but also because of decreasing popularity of technical specialties. The majority of young people in the western countries are not eager to strain themselves studying such difficult subjects as advanced mathematics and physics. However, this problem is typical not only for such countries as the USA and Germany, but also for countries with developing economies like Russia and Mexico.

There is another problem in the economically developed countries: many of university graduates are not prepared for unsupervised work. Even in the USA employers complain that they have to teach recent students the sense of initiative, so those students could become productive employees.

According to experts from Ernst & Young, the decision of many large western companies on transfer of IT operations to offshore territories, which was done in the mid-nineties, became one of the main reasons for the

current industry's staff shortage. For example, about 32 thousand students studied mathematics, physics, and computer sciences (i.e. the subjects that are necessary for work in the IT area) at British universities in 1998. Two years later, the number of such students dropped down to 8 thousand. According to Ernst & Young, the whole generation should probably be required to eliminate the gap in engineering training.

High unemployment of software developers and mass staff reductions in software companies in the Nordic countries do not fit well into the overall picture. For example, TietoEnator (Swedish – Finnish-Norvegian largest software service company) declared in 2012 its plans to dismiss 7% of employees (about 1,300 people) working in Sweden and Finland. 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 Baltic countries the unemployment is also caused by this reason and also due to the lack of career attractive software companies with solid reputation and high-quality management.

However, in such countries as Sweden and Finland the developers usually remain unemployed for a short time. In any case, their number is not big enough to influence demand and supply in the world labor market.

Many skilled programmers are unemployed in the countries of Southern Europe which are experiencing the financial crisis. In these countries, software development services as a business has not been developed yet and software companies are not reputable enough for customers from wealthier countries. However, there are no investments into offshore development centers in these countries yet and the situation has not become aggravated to the degree that would lead to software developers' mass emigration from these countries, although such a probability of exodus does exist.

Staff shortage is experienced even in the densely populated India which is the absolute world leader in the area of IT-outsourcing services. However, the staff shortage in this country is not connected to a birth rate decrease. The reason is related to problems in the general secondary education system in India, so only a small part of Indian children get the high-quality school education.

The situation in the Indian labor market leads to the fact that India is gradually being less and less considered as a low-cost labor country. According to Reuters, the largest Indian outsourcing companies started to depart from having a numerous staff of low-skilled employees with rather low salaries in India. They often aspire to build a small team of high quality professionals in order to make money not by providing labor-consuming and low-profitable IT-services, but by creating of intellectual property.

There as a considerable pool of IT specialists in Brazil, which is one of five most populous countries in the world. The government of this country has been implementing a manpower training program for many years .As a result, millions of people have moved up from the category of the poor into the middle class category thanks to technical education. Annually, 100 thousand Brazilian university graduates have opportunities to continue training at 50 world best universities at public expense. The Brazilian government set a task to train additionally 900 thousand IT specialists in the next 10 years. This figure is almost equal to the number of IT-professionals currently working in Russia.

However, the vast majority of Brazilian IT-staff and the largest Brazilian IT companies are oriented towards the internal IT market. It should be noted that – thanks to the state IT development support policy – this market reached $123 billion following the results of 2012. It is 3.7 times bigger than the Russian IT market, although Russia and Brazil have the fairly comparable population size and gross domestic product volume. The Brazilian IT market continues to grow quicker.

For various reasons (first of all, because of the domestic market high attractiveness which is partly achieved via the State protectionist policy) Brazilian software companies did not achieve important success in the world market, and the entire software export of Brazil is less than that of Russia. Besides, the Brazilian programmers' labor cost is quite high. Therefore, creation of software development centers in this country may be interesting for software companies from other countries who are looking at the large Brazilian IT market. If Brazil further increases the number of IT-students, the situation may change. The country may significantly increase software export that will allow reducing the labor market demand in other countries.

China and some other countries of the South East Asia achieve a good pace in training of software developers. However, building of an education system is a long process. Therefore the global shortage of developers cannot be covered by the increasing offer in this region. It is particularly true taking into account that the internal demand for qualified personnel is growing very quick in the countries of the South-East Asia. Chinese IT industry competitiveness is not promoted by the country's improving standard of living, which displays itself in a wage level growth in all economic sectors.

Generally, we can state that even a significant increase in the number of trained software developers in any country in the world does not allow compensating the growth of demand on the Global market.

The Manpower Group annual research showed that 49% of employers worldwide meet problems in filling crucial IT vacancies in their companies. IT-positions take the third place in the list of the vacancies that are the hardest to fill. Java, J2EE, and .Net programmers are especially demanded.

Due to the existing disproportions their salaries are growing worldwide. In most cases the increase is at least 5-10% per year. By this indicator Russia is hardly differs from other countries.

The programmers' average monthly salary in Russia is still much lower than in the USA, where in the Silicon Valley and in the largest cities it reaches $8,000-$11,000 (in Russia it is $2,000-$4,000). In addition, there is a strong deficit of developers in the Nordic countries, Germany, the UK and in several more countries. But it is not as essential as that of the USA. For example, in Sweden (where the pay level is higher than in Russia) the total cost of software development services is already comparable with the Russian one because of a higher average office rent in Russia. The competitive advantage of Russia over more economically developed countries in the labor cost is compensated by the higher costs of overcoming the administrative barriers and by higher cost of office rent.

Judging by the Java programmers' average incomes, the salaries of the Russian developers are approximately the same as the salaries in the Spanish-speaking countries (Spain, Mexico, Colombia, Argentina, and Peru) as well as in such countries of Southern Europe as Greece and Italy.

According to Russian software developer companies, the labor cost in Vietnam and China is at least twice lower than in Russia. Other costs on business organization are also lower there. As it was earlier, total expenses on software development in India are still much lower, than in Russia. It is partly due to the fact that in India there are no pension' and social taxes as pensions are generally absent at all (in any case, for the most part of the population).

Equalization of pay levels in Russia and in the economically developed countries leaves less preconditions for mass relocation of Russian developers to the West for permanent residence or for several years' work. The "brain drain" is not a serious problem for the Russian software industry any more.Some experts leave Russia, others, on the contrary, move here from other countries. Multidirectional streams are equivalent in its scope. In

the recent years the largest Russian software companies demonstrated that they could compete on equal terms for top-managers with the leading companies of the world.

There are still many software developers desiring to go abroad. However only few of them take active attempts for this purpose. The motives have also changed – they aspire to go abroad not to receive a higher salary in other countries, but to gain new experience and new knowledge. Thus, return to Russia is not excluded in many cases.

In spite of the fact that the deterioration of the Russian labor market situation is offset by the similar problems abroad, the current state of things cannot be considered as normal. The available huge unused potential of Russia allows counting on a significant increase of the country share in the global 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 number of scientists and engineers per million persons, considerably advancing India and China. Russia is also on the first place in the world by the share of students acquiring technical qualifications (according to UNESCO, Federal Statistic Office of Germany).To use this potential, it is necessary to create more favorable conditions for IT business in Russia.

In the last 18 months American IT companies became more active in attracting IT-staff from other countries; they lobby for a significant increase in the number of employment visas for foreign experts. The first version of the bill provided an increase in the quota of the H-1B visas from 65 thousand to 110 thousand with an option of further annual increase up to 180 thousand with an increment of 10 thousand. However, IT companies requested to extend the quota at least up to 300 thousand. Experts consider that there is a chance to achieve the growth of IT staff immigration to the USA to the required value or at least by tens of thousands. It is not difficult to assume that a considerable part of these visas will be intended for Russian programmers.

Although a number of countries (for example, Germany and Finland) did not act for attracting foreign developers actively in the last 2 years, they have the State programs providing a simplified naturalization procedure for programmers and their adaptation in the new living conditions. Thus, a threat of an increase in Russian developers outflow abroad still remains.

Russia needs to undertake active steps to sustain competition for software developers in the global labor market. It is desirable not only to create favorable conditions that will prevent brain exodus from Russia, but to involve foreign developers more actively to Russia. The government has already declared the necessity to promote attraction of IT-professionals from the neighboring countries. However, it still does not deal with the matter in practice. Probably, it is more reasonable to attract staff not only from the nearing countries but from the entire world, as well. In many countries there is a quite loyal attitude to Russia. For example, at Indian forums, you can read enthusiastic reviews of trips to Russia. In addition, European programmers who lost their jobs may be minded to move to Russia. The global tendencies and the crisis phenomena in a number of European countries are such that reasonably massive immigration of developers does not seem a fantasy any more. Actually, not a few employees from the West European countries already work for Russian software companies. And it is observed despite the fact that obtaining employment visas for such experts is an intricate task and the visas should be prolonged each six months.

CHAPTER 6

TECHNOLOGIES

Operating systems

76. Commonly used operating systems

		2007	2008	2009	2010	2011	2012
1	MS Windows	97%	94%	93%	96%	94%	88%
2	GNU Linux family	64%	54%	54%	59%	60%	65%
3	Android	-	-	6%	4%	37%	33%
4	Mac OS	26%	9%	15%	19%	32%	31%
5	iOS	-	-	-	-	28%	24%
6	MS Windows Mobile	41%	17%	16%	15%	23%	17%
7	MS Windows Phone	-	-	-	-	19%	19%
8	Sun Solaris	26%	16%	15%	19%	19%	14%
9	Open/Free/NetBSD	25%	7%	9%	9%	13%	10%
10	RIM Blackberry	-	-	-	-	11%	6%
11	Symbian OS	25%	11%	12%	9%	11%	6%

The two most popular operating systems (Windows and Linux) remained on their places, but MS Windows was mentioned a little less frequently and GNU Linux family – more frequently than the last year. Most likely, it is not a random fluctuation but a demonstration of the regular tendency towards a certain expansion of free software in the world.

Another trend is an increase in use of operating systems for mobile communication devices by the companies that are oriented towards the foreign market. There is a considerable lag of demand for mobile applications on the part of the companies that are mainly geared to the Russian market. Their audience rating of such operating systems as Mac OS, iOS, Windows Mobile, Windows Phone, Symbian is much lower than the average figure given by all respondents in comparison with the companies that are more geared to the global market.

It means that the applications for mobile devices and Apple tablets are being mainly developed now for sale abroad. Still, considering an important increase in the share of smart phones and tablets in Russia, it is possible to assume that these systems' popularity will be aligned among the companies with orientation towards the Russian market and among exporters.

Traditionally, the percentage of the companies that use mobile operating systems (iOS, Windows Mobile, Windows Phone, Symbian) is much higher in St. Petersburg than in other cities.

Along with the OSs specified in the table, the respondents also mentioned QNX and VxWorks (once each OS) and the operating systems for IBM mainframe (twice).

Programming tools

The three most popular programming languages remained the same: .NET, C/C ++, and Java/J2EE. The popularity of PHP has considerably grown in the recent years.

PL/SQL and Perl are almost not used as the main programming languages, but they are still mentioned by several companies as subsidiary languages. Five companies (4%) have also specified 1C embedded programming language.

MS Visual Studio remains the most popular programming tool. Its breakaway from Eclipse is still considerable but it slightly reduced during the year. The indicator of MS Visual Studio popularity turned out to be the lowest for all the years of research.

Xcode (2%) and Oracle NetBeans (3%) are most often mentioned among the programming tools that are not listed in the Table.

It should be noted that only a half of the respondents specified the programming tools they use. Apparently, an important potential of improving of the industry's labor productivity exists there.

77. Frequency of mentioned programming languages specified as main tools in 2008-2012, % of respondent companies

	2007	2008	2009	2010	2011	2012
.NET (C#)	48%	17.5%	21%	24%	41%	32%
C/C++	33%	36%	46%	38%	36%	30%
Java/J2EE	38%	21.1%	22%	20%	30%	23%
PHP	13%	5.8%	8%	9%	9%	16%
Pascal (Delphi)	13%	18.4%	18%	9%	3%	7%ц
ruby					4%	4%
Python					3%	3%
Other	-	-	-	6%	18%	20%
Open/Free/NetBSD	25%	7%	9%	9%	13%	10%
RIM Blackberry	-	-	-	-	11%	6%
Symbian OS	25%	11%	12%	9%	11%	6%

78. Usage of programming languages which are not considered as main tools, but are applied by the companies in a number of projects, % of respondents

	2008	2009	2010	2011	2012	2012
Java/J2EE	43%	41%	28%	49%	45%	88%
C/C++	31%	38%	25%	30%	29%	65%
.NET	24%	45%	22%	39%	36%	33%
Pascal (Delphi)	19%	17%	8%	21%	11%	31%
PHP	17%	15%	11%	18%	19%	24%
PL/SQL	6%	8%	4%	4%	4%	17%
Perl	5%	6%	2%	6%	6%	19%
Python					4%	14%
Others					40%	10%
Not specified					14%	6%

79. Most popular programming tools

	2007	2008	2009	2010	2011	2012
MS Visual Studio	46%	64%	60%	62%	45%	36%
Eclipse	19%	25%	19%	6%	16%	15%
Intellij IDEA	10%	5%	3%	8%	9%	4%
Delphi	10%	7%	3%	-	2%	1%

DBMS

Frequency of mention for all DBMSs that are present in the table almost did not change during the year (the existing fluctuations can be explained by random factors). MS SQL is still in the lead. On the second place, there is the free MySQL DBMS, which a year ago moved back to the third place the commercial Oracle DBMS (both systems are developed and supported by Oracle). However, Oracle DBMS is still on the second place among the companies with the turnover over $4 million, which account for nearly 90% of all respondent companies' personnel.

About 15 DBMSs also mentioned by respondents did not enter the table. MongoDB was most often mentioned among them (3 times).

80. Commonly used DBMSs, % of the interrogated companies

	2007	2008	2009	2010	2011	2012
MS SQL	82%	66.1%	63%	74%	70%	66%
Oracle	69%	48.6%	49%	55%	51%	47%
MySQL	68%	35.8%	47%	40%	59%	56%
MS Access	49%	14.7%	19%	9%	19%	17%
Firebird	19%	11.%	11%	9%	10%	13%
PostgreSQL	31%	11.0%	17%	15%	26%	30%
MSDE	27%	9.2%	7%	5%	5%	5%
IBM DB2	33%	8.3%	13%	14%	9%	10%
InterBase	18%	7.3%	9%	7%	7%	10%
Sybase ASA	13%	6.4%	6%	6%	5%	6%
SQLite	8%	5.5%	9%	5%	12%	10%
IBM Informix	18%	5.5%	7%	5%	7%	7%
SAP DB	9%	4.6%	6%	5%	7%	5%
Sybase ASE	13%	3.7%	6%	3%	3%	6%
Paradox	12%	1.8%	4%	3%	3%	2%
Other			13%	8%	7%	8%

CONCLUSIONS

According to results of the year 2012, the cumulative turnover of Russian software development industry is considered to be as high as $9.5 billion (it is about 0.45% of the nominal GDP of Russia) and the export reached the value of $4.6 billion (that is nearly 15% more than a year before). Industrial software development for export is conducted on a noticeable level at least in 45 Russian cities.

Export of software development services increased by 10% up to $2.1 billion, while export of licensed software grew by 17% up to $2.0 billion. The export growth rates of R&D centers of foreign corporations increased in 2012 (largely thanks to the Skolkovo Foundation activities). The rates went at least up to 12% and the volume of export reached $500 Million.

More the service company size is – the higher their export growth ratio is. The largest software development outsourcing service providers' growth reached 20-30% per year, while the smallest service companies' export did not increase at all. The basic reason of the services' export growth slowdown is the staff shortage in Russia.

Export sales of Russian licensed software increased to a lesser extent than in 2011 because of a cyclical nature of the startup' creation and development process. The software vendors of the first wave of startups reached the maturity level. Their natural growth within their market segments stabilized, while the next wave of startups have not yet reached the global players level.

In 2013-2014 the growth of IT export from Russia will continue at a speed of about 15-20% per year. The growth rate of the software development outsourcing services' export, most likely, will remain at the level of 2012. Meanwhile the growth rate of export of licensed software and that of R&D centers of foreign corporations in Russia will slightly increase.

The total number of staff of software companies comprised at least 120 thousand employees including 18-20 thousand people in the foreign branches of Russian companies. Totally, in the companies of all types and in the public sector of Russia there are over 400 thousand software developers, while 850 thousand Russian people have programming skills (i.e., may be potentially involved in the industry).

This year' survey results first allowed assuming that the gap in the growth of the software development industry between the two capitals and regions has been gradually

but steadily closed (infrastructure developments including science and technology parks were put into operation; venture and investment funds came to the regions; startups got local support). The number of companies outside Moscow and St. Petersburg is growing slightly quicker and new large software development companies grew up to a remarkable level. Conditions for conducting Hi-Tech business in some regions considerably improved.

For the last year Russia improved its positions in the various global ratings which reflected the level of IT development and usage, as well as conditions for conducting business.

The image of Russia abroad as a hi-tech country keeps improving. The results of the analysis of the publications devoted to the high technologies' sector in Russia showed that the share of articles that positively influenced the image of Russia abroad increased from 57% to 70% within the last 12 months.

The share of Russian companies in the most well-known and prestigious global IT-ratings was kept at the level of 5-8% within several recent years. Considering that not only IT service providers but also BPO service providers are included into the Top-100 world's best outsourcing companies, we can honestly say that the share of Russian companies in the Top-100 world's leading service IT companies is greater than 10%.

The volume of the Russian information and communication technology market (ICT market) increased by only 1.2% in 2012. The information technology market grew slightly more – approximately by 4% according to IDC and by 7% according to the Ministry of Telecom and Mass Communications of the Russian Federation.

The share of respondent companies that enjoyed incentives in social taxation according to the Federal Law No. 212 of 2010 remained at the level of 36-37%. Companies that took advantage of these privileges increased their turnover by 26% and their export volume – by 14%. For similar companies that did not use the social tax incentives, the corresponding figures were 10.5% and 7% (i.e., the growth rates were approximately twice lower). If we assume that the best growth figures were reached thanks to granting the privileges only, the preferential tax treatment led to an increase in the Russian software companies' cumulative turnover by $830 million, and to their software export – by $252 million.

Following the results of 2012, the share of Russian software and services in the entire Russian export was 0.88% (a year ago, it was 0.8%). 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. The software industry provides a greater export share than the aircraft industry (aircrafts account for 0.8% of the export) and among hi-tech sectors it only concedes to the atomic power industry' export and to the arms export.

Analyzing the share of companies that attracted investments in 2009-2012 we can note that for the first time after the corresponding questions had appeared in the survey it increased in 2012 (from 9% to 12%).

According to the Russian Venture Company (RVC) and to PricewaterhouseCoopers (PwC), venture investors invested $910.6 million in Russian IT companies in 2012, which is 2.3 times more than a year before.

The respondents' general average estimation of the conditions for business existing in Russia remained the same, as well as a year ago. However, by some individual criteria there were significant (multidirectional and compensating) changes, which need to be noted. By the results of 2012, the estimates increased almost in all criteria that are affected by the government support to the Industry. The only exception is the problem of bureaucracy and administrative barriers, which often considerably reduces the effects of State support.

As the situation with incentives in social taxation to software companies and the extension of privileges to small companies

cleared up, the share of respondents dissatisfied with the Russian tax system sharply reduced (from 66% to 36%) in the last 2 years.

Not regular nor significant State support to the international marketing activities and export still does exist in Russia, but there emerged hopes that it would be provided to the industry.

The USA stopped being the second most important market for Russian companies (after Russia). Russian software developers began to pay more attention to promotion of their services and products in the neighboring countries of the former USSR, as well as in Africa, in Arab countries, in South America and in the South-East Asia. Their orientation towards Europe and the USA is becoming less significant.

About one third of Russian software companies have at least one off-shore software development center (16% of companies have two and more development centers and 7% of companies have three such centers and more). Most of Russian companies' foreign development centers are located in Ukraine. Favorable conditions for software companies are established there (many experts consider that these conditions are better than in Russia) and the labor cost is lower than in both Russian capitals.

Conditions favorable for mass recruitment of foreign qualified personnel to Russia have arisen in the recent years. Thanks to these changes, business began to look for new staff not only at the neighboring but also at the far-abroad countries, as well. However at present the migration policy of the Russian Federation does not promote the inflow of qualified personnel to Russia. Instead, it does not prevent the inflow of migrants who do not have any labor skills. Russia needs to have a new legislation which would allow the country to be involved in the global competition for highly qualified staff.

The staff size of the respondent companies increased by 14% from the end of 2011 to the end of 2012. This occurred mainly due to the off-shore development centers that have been established or expanded by the largest companies, as well as (on a second-priority basis) thanks to the Russian higher education institution graduates.

Conditions for conducting business for the smallest exporter companies (with the turnover less than $4 million) considerably worsened during the last 2 years despite the State stimulation measures to startups. These companies are in a more difficult situation in comparison to larger software developers as they do not enjoy the social taxation incentives. Conceding the competition for employees, they did not increase neither personnel nor turnover and export.

The number of companies that are not pressed for acute staff shortage considerably reduced. There are 27% of such companies (while in the last several years their number was at the level of 45%-55%). Due to the staff shortage, the majority of companies actively recruit developers without experience from university graduates.

The results of this survey obtained within the last 5 years allow us to state that there is a net increase in the number of software developers (both in absolute and in relative values) who have a good command of English. Their share grew from 65% to 72%. However, the quality of foreign language teaching at universities and schools should be improved to match the software export growth rates. Small companies and companies located in regions primarily experience a lack of English-speaking employees.

According to the survey of exporter companies, the average salary of software developers (including managers) was $2,300 (71,300 rubles) in 2012. It grew up approximately by 7-8% compared with the previous year. As the growth of the average salary level was 18% in 2011, we can speak of a certain decrease in the staff remuneration growth.

PARTICIPANTS OF RESEARCH

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 thirteen 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 $2.5B 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, 2010-1013; Global Services 100 2011, Software 500 2010-2013, 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

Corporate solutions:
Custom software: Mobile, Web and desktop applications; Multi-tier distributed solutions; SaaS, IaaS, 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:
Operation 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).

In-house software products:
iVizart – cloud on-line visualization tool;
Artezio Kanban Board – plugins to simplify project management in Attlasian JIRA and MS Outlook;
MinutesPad – professional mobile app for meeting minutes management;
Travel Stories – travel planning mobile app;
iLikeSlide – app to create and demonstrate Instagram slideshows.

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.

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Elite Software R&D Services Since 1990

Founded:
1990

Headquartered:
Moscow, Russia

Company overview: 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.

Engineering Locations: 4 development centers in Russia (2 in Moscow, N. Novgorod, Rostov-on-Don), +1 in EU (Vilnius, Lithuania)
Industry Standards: CMMI Level 4, ISO 9001, SPICE, DO-178B, ISO 13485
Domain Verticals: high-tech, Telecom, Mobile, Healthcare, Finance, Information security, Enterprise, Computer SW, Education, Government, Automotive and more
Major Clients: IBM, Draeger Medical, Chrysler, Sberbank Russia, Yandex, LynuxWorks, Pigeon Point Systems, HomeCredit, IBM, CROC, iMind, onMobile, etc.

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

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, Tizen, Windows Phone) and Connectivity (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)
- Multimedia streaming: multiplexing/de-multiplexing, real-time transcoding, optimization for mobile devices, face recognition
- Geolocation and Geopositioning (LBS, GPS, GSM, NFC, SS7)

Awards:

- In Global Outsourcing 100 (rating by IAOP) since 2008. In 2013 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
- Microsoft Silver Partner in Application Development since 2010

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Confirmit Ltd.

Founded: 1996

Headquartered: Oslo, Norway

Company overview: Confirmit is founded in 1996, the world's leading software vendor for Voice of the Customer, Voice of the Employee, and Market Research. Using the feedback received from customers and employees, helps to streamline business processes and make targeted investments to improve customer loyalty and increase profits. 10 offices placed in Norway, the UK, Russia, Germany, USA and Canada. Customers include Barnes Research, Best Buy, British Airways, British Standards Institute (BSI), Dow Chemical, Farmers Insurance, GlaxoSmithKline, Halifax Bank of Scotland, Hoffman LaRoche, HSBC, Ipsos, Marketo, Nasdaq, Nielsen, Office Depot, The NPD Group, Royal College of Surgeons, Symantec, Wells Fargo, WorldOne, etc.

Development centers: Moscow, Yaroslavl
Expertise: Voice of the Customer, Market Research

Employees: 300

Industry: Software development

Programming languages: C#, JScript

OS: Microsoft Windows Server

Data base: MS SQL Server

Technology: Scrum

Web-server: IIS

Awards:

- 2013 TMC Labs Innovation Award from CUSTOMER Magazine
- 2013 CRM Excellence Award
- 2012 Product of the Year Award from CUSTOMER magazine
- 2012 Customer Magazine Innovation Award
- 2012 TMC Labs Innovation Award
- 2012 CRM Excellence Award, Customer Interaction Solutions
- 2012 Service Leaders Enterprise Feedback Management
- Leader in The Forrester Wave™: EFM Vendors, Market Insights Platform Providers, Q3 2011

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Global presence:
USA, EU, Russia

First Line Software

Company 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. We maximize business value for clients by coupling our highly effective development processes and technology talent with a comprehensive professional 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
- Technology enablement: integration, implementation and customization services
- 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:

- ECM
- WCM
- BPM
- Loyalty & digital marketing
- Cloud computing
- Enterprise portals
- Business Intelligence

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EPAM Systems, Inc

Founded:
1993

Global headquarters:
Newtown, PA, USA

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 9,000 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
IT Headcount: 9000+

Services:
- Software product engineering and custom development
- Project-based technology consulting
- Application Testing, Maintenance and Support
- Application Migration and Reengineering

Practice areas:
- ISVs and Technologies
- Banking & Financial Services
- Business Information & Media
- Travel & Consumer
- Emerging Verticals

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)

Partial customer list:
Adidas, The Coca-Cola Company, Viacom/MTV Networks, Expedia, Schlumberger, Renaissance Capital, Moscow Exchange, SAP, Microsoft, Oracle, UBS AG, Sephora

Awards
Forbes: EPAM is ranked #6 on the Forbes "America's 25 Fastest-Growing Tech Companies"
The 2013 Global Outsourcing 100— EPAM included in the Top 30 outsourcing providers in IAOP's (International Association of Outsourcing Professionals) list.
CRN 2013 Solution Provider 500: EPAM has been recognized by UBM Tech Channel as a part of CRN's 2013 Solution Provider 500 list, which identifies the top technology integrators in the U.S.A. and Canada

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Newtown (PA), 18940, USA

GDC ICL Group

Founded:
1991

Headquartered:
Kazan,
Russian Federation

Company overview: Global Delivery Centre (GDC) – is a business unit of ICL group of companies delivering comprehensive outsourcing services in application development, support and maintenance and remote infrastructure management for international and global customers.

GDC employs more than 700 specialists, has over 100 Customer, and completed over 250 major projects.

Our services help Customers achieve their business goals –increase enterprise growth, reduce enterprise costs, improve business processes, implement and update business applications, update IT infrastructure, improve enterprise efficiency, business continuity and security.

GDC adopted Fujitsu methodologies and processes in providing outsourcing services and is preferred supplier of services to Fujitsu.

Development centers: Kazan, Voronezh
Certifications: ISO 9001:2008, ISO 27001, ISAE 3402 Type II (SAS70)
Supported industries: Retail, Logistics, Manufacturing, Financial services, Automotive, Telecommunications.

Provided services and technical expertise

Application Development and Integration
- Bespoke development using Java (J2SE, J2EE, J2ME), Microsoft (MS .Net Framework, MOSS, MSF), Oracle (Oracle Database and Application Server, BI, Portal, SOA, BPEL, RAC) and Mobile (iOS SDK, Cocoa Touch, Objective-C, Android SDK, Windows Phone 7/8, Silverlight) Technologies
- Application Re-design and reengineering (SOA, Web-services), legacy modernization (old ORACLE and MS, PHP, Cobol, Progress, Delphi)
- Application Integration using enterprise solutions (Sonic ESB, Sonic MQ, Apache Camel, MS BizTalk, Azure)
- Independent testing (ISEB-certified team providing test management, test planning and design, test data and environment preparation, test automation)

Application Management
- Application transition, support and maintenance
- Reengineering, replatforming, application innovation

Complex Remote Infrastructure Management and Implementation
- Design and implementation of infrastructure solutions
- Managed Data Center
  - Managed Server (UNIX, WINTEL, E-Mail, Enterprise Management, Virtualization, Databases, IT security, etc)
  - Managed Storage (NetApp, EMC, Backup/Recovery, etc)
  - Managed Networks (LAN, WAN, VPN, DSL, Networ Security etc)
- Managed Workplace (Remote Desktop Management, Software Delivery, Image Management, Application Packaging, Virtualization and Testing)
- Multilingual Service Desk

Business Process Automation
- Automated process discovery (Fujitsu APD tool)
- ITSM consulting & automation (e.g. ServiceNow, OTRS)
- BP consulting & automation (e.g. Business Studio, Nintex)

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ISS Art, LLC

New Vision – Best Solution

Foundation date:
May 2003

Headquarter:
Omsk, Siberia,
Russian Federation

Company overview: Information Service Systems Art, LLC has been rendering custom software development and support services in Russia and abroad for more than 10 years. We constantly improve our processes to achieve customers' business goals within shorter terms and optimal budget. ISS Art believes its important task is to build close and trust-based relations with its partners and customers, which allows performing quality product as a result complying with the customer's requirements. Our tools are absolutely clear for the customer's representative at any stage of the project. We fundamentally observe laws and ethical business practices. We also care about employees' professional growth. The company provides a teaching program enabling the employees to improve their skills and increase the quality of product. As a result comes a high quality product developed using modern technologies and business processes. The reward for our efforts is 75% repeat customers.
Our aim is to ensure your project's success.

Development centers: Omsk, Krasnoyarsk (Russian Federation)
Quality standards: ISO 9001:2008
Industry focus: IT, social sphere, education, media
Founder: NPO "Siberian IT-cluster" www.itsiberia.ru, Social media "ISS Art Media" www.issartmedia.ru

Services:
- Custom software development (architecture design, development, integration and maintenance)
- QA services
- IT consulting
- Dedicated development centers

Area of expertise:
- Information systems
- Mobile solutions (iOS, Android)
- Web and desktop applications
- Science-intensive projects (R&D)

Technologies:
- Desktop Applications – .NET, C++, Java
- Web Applications – PHP, Java, ASP.NET; Javascript, XHTML, HTML 5, CSS;
- Mobile Applications – iOS, Android, Windows Mobile, BlackBerry, Bada
- Databases – MS SQL, MySQL, PostgreSQL, NoSQL.

www.issart.com
info@issart.com
Tel +7 3812 909 808
+1 (415) 729-3933

Founded:
1991

Reksoft

Headquartered:
St. Petersburg,
Russian Federation

Company overview: Reksoft is a software engineering service provider headquartered in St. Petersburg, Russia, and having local offices in Germany and Sweden. More than 20 years Reksoft delivers high quality software engineering and integration services and end-to-end solutions for telecom, financial & banking, public and cross-industrial sector. The company counts more than 380 employees. Citi Bank, Ascom, Aastra Telecom, Comverse, Dirol Cadbury, Fujitsu Technology, FXDD, Infor, Mavenir Systems, Mazda, Philip Morris, Sicap, Springer Business+Science Media, StoraEnso, Swisscom Mobile, Tieto and T-Systems are among Reksoft's clients.

Development centers: St. Petersburg, Voronezh
Offices: Moscow (Russia), Munich (Germany), Stockholm (Sweden)
Employees: 400+
Recognition: The 2012 Global Services 100 list, the 2012 top 100 Russian employers list by HeadHunter

Services:

- Software 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 appraised at Level 5 of the CMMI Institute's Capability Maturity Model Integration (CMMI). All business units took part in appraisal: departments of financial, telecom, public sector and cross-industrial projects Reksoft is the first company from Russia and CIS rated at maturity level 5 according to the CMMI-DEV v1.3 model. Appraisal details available at https://sas.cmmiinstitute.com/pars/pars_detail.aspx?a=20167.

Partnership:
Reksoft collaborates with Microsoft, Oracle, EMC, IBM, Adobe and other global IT companies.

www.reksoft.com
rfi@reksoft.com

We thank participants of research

Adept

www.gk-adept.ru | info@gk-adept.ru | +7(831) 464-9777 | Nizhny Novgorod, Russia

Year of Aoundation: 2002
Headcount: 20
Programming Languages: C++

The group of companies Adept is a successful Russian IT company - a leading developer and supplier of software for the construction industry - provides a full range software services, from development and implementation to training and consulting. Today Adept employs more than 130 professionals, has offices in Moscow, St. Petersburg and Nizhny Novgorod and is connected with all major Russian cities trough more than 130 authorized distributors.

Alditek

www.alditech.ru | web@alditech.ru | +7(496) 773-6220 | Puschino, Russia

Year of Aoundation: 2006
Headcount: 15
Programming Languages: C, C++, VHDL, Verilog

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.

ALT Linux

www.altlinux.ru | org@altlinux.ru | +7(495) 662-3883 | Moscow, Russia

Year of Aoundation: 2001
Headcount: 37
Programming Languages: PHP, Python, Python, Scheme

ALT Linux operation systems ALT Linux releases operation systems since the day of its foundation in 2001. before the foundation its developers developed free operation systems, for instance, within the IP Labs Linux Team project. This is how you can explain success of a new company which managed to join efforts of over 150 dvelopers from across the planet.Operation systems by ALT Linux are result of collaboration of its developers and users.

ANCUD

www.ancud.ru | marketing@ancud.ru | +7(499) 731-0000 | Moscow, Russia

Year of Aoundation: 1991
Headcount: 80
Programming Languages: C++, C

ANCUD Limited Liability Company is a well-known Russian designer and manufacturer of hard- and software for cryptographic protection of information. It was established in 1991. ANCUD engages in a full Hi-Tech product cycle from development of its own component base to providing complex solutions. Main Activities: Design of encryption hardware and software for cryptographic protection of information; Design and manufacturing user acceess control system; Custom design of microprocessor components and electronic hardware.

APM Research and Development Centre LLC

www.apm.ru | com@apm.ru | +7(498) 600-2530 | Korolev, Russia

Year of Aoundation: 1992
Headcount: 30
Programming Languages: C++, .NET

Research and Software Development Center APM was founded 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, ZAO

www.arcadia.spb.ru | info@arcadia.spb.ru | +7(812) 610-5955 | Saint Petersburg, Russia

Year of Aoundation: 1993
Headcount: 195
Programming Languages: MS .NET, C#, MS SQL, C, C++, Objective-C, Java, MS Silverlight, HTML5, MS SharePoint, Android, iOS

Custom development of business applications, re-engineering of legacy software and data migration; dedicated teams (offshore/nearshore development centers). Vertical expertise: education & e-learning, HRM, workflow & business process automation (BPA), ECM, financials & accounting, insurance automation, pharmaceutical data warehousing, information security. Our engineers have great experience in development of large-scale, high-performance information systems — desktop solutions, web applications (RIA, intranet, collaboration portals), and mobile apps (Android, iOS, Windows Phone) for business.

ASV

www.asv.ru | info@asv.ru | +7(342) 222-4444 | Perm, Russia

Year of Aoundation: 1994
Headcount: 30
Programming Languages: C++, Java

Created in 1994, JSC ASV is Russia's leading developer of highly technological solutions for the telecommunication business automation. Over 50 Russian telecommunication companies are quite successfully using JSC ASV's solutions, profiting from their reliability, scalability, availability, low operating costs and simplicity of servicing. JSC ASV has been able to develop a unique technology to implement and support its own solutions, thus being able to make more than 50 installations in the lines of three regions in the Republic of Kazakhstan in 1998, including the largest city of Alma-Ata, in Kazakhtelecom JSC.

Asys Soft

www.asys.ru | asys@asys.ru | +7(499) 645-5364 | Zelenograd, Russia

Year of Aoundation: 1996
Headcount: 10
Programming Languages: C#, PHP, Java

ASys has been developing information systems for enterprise management for more than 15 years. Over this period the company has worked out a specific approach to information systems building on the basis of a single model that is able to reflect any kind of activity in an organization. ASys creates information systems on the basis of a single model. These information systems allow gradual elimination of 'information system zoos'. In the nearest future you will be able to build business models of your operations and manage them on the basis of ASys platform.

Autosoft

www.autosoft.ru | info@autosoft.ru | +7(343) 267-2938 | Yekaterinburg, Russia

Year of Aoundation: 1997
Headcount: 15
Programming Languages: .NET, PHP, Delphi

AutoSoft Company, Ltd. is one of the leading developers of the specialized software for business-processes automation at the enterprises of automobile and allied industries. AutoSoft carries out the activity in the market of computer technologies for the domestic autoindustry since 1997 year, being one of the pioneers in this area. For this time the company saves up a wide experience which helps it with goals achievement, namely: in development of high-quality products and competent, fast introduction of the systems on the various enterprises.

Bee Pitron

www.beepitron.com | all@beepitron.com | +7(812) 740-1800 | Saint Petersburg, Russia

Year of Aoundation: 1993
Headcount: 214
Programming Languages:

Engineering and manufacturing of EWIS for transportation. Implementation of PLM (Dassault), CAM, project management systems (1C ERP)

Capital-Soft

www.mmtt.ru | e@mmtt.ru | +7(495) 766-0867 | Moscow, Russia

Year of Aoundation: 2008
Headcount: 5
Programming Languages: C++, Delphi

Capital-Soft is a successor to Management Technology company, established in mid-2001 by a team of professionals in the field of accounting and software development in order to develop a range of commercial software solutions for accounting management. We offer a retail product that helps small and medium-sized companies to solve most of the problems in the area of accounting management. The application "Capital" is designed to maintain a unified automated records of all transactions and actual cash flows.

CN-Software

www.cn-software.com | support@cn-software.com | +7(816) 260-3500 | Veliky Novgorod, Russia

Year of Aoundation: 2005
Headcount: 15
Programming Languages: Java, C, PHP

CN-Software Ltd. was registered in August, 2005; however, the history of our company (known as CN-Software.com) started in 2002, when the first copies of CNSearch - the search system for web-sites - had been sold. That was the time when the core of our team, aimed at web-site software development, formed. Later, the number of our software products increased. Some of our developments are now presented as software products.

Compass

www.compas.ru | market@compas.ru | +7(812) 327-7429 | Saint Petersburg, Russia

Year of Aoundation: 1991
Headcount: 80
Programming Languages: C++, C#, .NET

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

www.competentum.ru | info@competentum.ru | +7(495) 514-1100 | Dolgoprudny, Russia

Year of Aoundation: 1993
Headcount: 100
Programming Languages: C#, Javascript, HTML5

Competentum is a group of international companies that operates in the global e-Learning market in Russia, Europe and the USA. We offer a full set of innovative proprietary e-Learning products as well as high-level consulting, software and e-content development services for both academic education and professional training.

Comtec - systems for business Co Ltd.

www.comtec.ru | comtec@comtec.ru | +7(495) 544-2552 | Moscow, Russia

Year of Aoundation: 1990
Headcount: 14
Programming Languages: Sybase PowerBuilder, C++

Comtec Systems for Business, Ltd. specializes in the development and implementation of enterprise management systems. The 9th generation of the product named Comtec for Business is a full-fledged ERP-system that inherits all the advantages of the previous versions and adds new services and functions for the customers. Based on client-server architecture it is aimed at ERP solutions for SMB in various activities - manufacturing, retail, wholesale trade and service. It is oriented on top managers, accountants, warehousemen, sales managers, analysts.

CSI International Software

www.trace.ru | csi-software@trace.ru | +7(812) 252-0412 | Saint Petersburg, Russia

Year of Aoundation: 1997
Headcount: 10
Programming Languages: Java

CSI International Software Ltd. Is software developer company working in the field of bespoke solutions for Software projects. Our company started its business activity in 1997. The main directions of our activity are Internet catalogues & directories; E-commerce; Portal solutions; Transport logistics; Interactive Internet services; Vehicle Tracking Systems; Corporate Informational Systems; CRM systems; Internet Mapping Service; Mobile solutions; Security systems.

DataArt®

www.dataart.com | info@dataart.com | +1(212) 378-4108 | New York, USA

Year of Aoundation: 1997
Headcount: 850
Programming Languages: .Net, Java, C++, iOS, Android

DataArt 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, DataArt provides the technical skill, accountability and industry knowledge.

Digital Design

www.digdes.ru | info@digdes.com | +7(812) 346-5583 | Saint Petersburg, Russia

Year of Aoundation: 1992
Headcount: 377
Programming Languages: C#, Objective C , Java, VB Script, JavaScript

Digital Design renders full range of services for business automation, including mobile solutions, electronic content management systems, corporate portals, infrastructure solutions, custom software development.

e-Legion

www.e-legion.com | sales@e-legion.com | +7(812) 324-2724 | Saint Petersburg, Russia

Year of Aoundation: 2005
Headcount: 70
Programming Languages: Java, C#

e-Legion is a Russian company founded on November 2, 2005. The company provides software development services with a 7-year experience in this field. The company's primary business activity is software development for the following mobile operating systems: iOS, Android, Windows Phone and Windows 8. Also we work with web-development and business processes integrated automation. e-Legion has accomplished various projects for such companies as Yandex, Mail.Ru Group, BMW, KFC, Stanford University, Ginza Project, i-Free, Reget Software, Solaris Development and others.

EMC / Russia COE

www.russia.emc.com/CoE | maria.melnichenko@emc.com | +7(812) 325-4633 | Saint Petersburg, Russia

Year of Aoundation: 2007
Headcount: 275
Programming Languages: C, C++, C#, Java, .Net

EMC builds information infrastructures and virtual infrastructures to help people and businesses around the world unleash the power of their digital information. EMC offerings in backup and recovery, enterprise content management, unified storage, big data, enterprise storage, data federation, archiving, security, and deduplication help customers move to and build IT trust in their next generation of information management and enable them to offer IT-as-a-Service as part of their journey to cloud computing

Enterra Holdings, Inc

www.enterra.ru | salesteam@enterra-inc.com | +7(385) 256-7295 | Barnaul, Russia

Year of Aoundation: 2001
Headcount: 80
Programming Languages: .NET, C#, Java, PHP, C++, Objective C, Delphi

Enterra is a software development company that provides high-end application development and design as well as product engineering based on technical expertise of over 60 software developers in our staff. Enterra representative offices in USA (Tampa), Germany (Schwetzingen), Russia (Moscow, Barnaul) provide you with the confidence and simple way of work with us in your area. Our development centers in Russia and Ukraine staffed with technical professionals provide you with top quality software that meets your specification.

ETNA Software

www.etnasoft.com	info@etnasoft.com	+1(855) 779-7171	New York, USA

Year of Aoundation	Headcount	Programming Languages
2002	140	C#, Java, C++

ETNA Software is a technology solutions provider for financial markets and has been operating internationally for more than ten years. ETNA Software creates custom trading software for all asset classes and technical analysis systems for financial market start-ups, technology firms, retail brokers, market makers, exchanges and individual traders. Leveraging nearshore or offshore outsourcing allows company clients to optimize project budgets, reduce expenses and maximize both, fiscal and organizational goals. Major company clients are Saxo Bank, SogoTrade and ChoiceTrade

eVelopers Corp

www.evelopers.com	info@evelopers.com	+7(812) 324-3211	Saint Petersburg, Russia

Year of Aoundation	Headcount	Programming Languages
1999	60	J2EE, JavaScript, HTML, Ext-JS, Ext-GWT, GWT, PHP, JQuery, DoJo, Flash, Flex

eVelopers™ is a software development, consulting and outsourcing company. We serve customers worldwide by designing and building complex solutions that integrate with back end systems, using open source components when appropriate. Founded in 1999 as California Corporation, eVelopers maintains presence in Silicon Valley and a global development center in St. Petersburg, Russia. Businesses and organizations of all sizes, including Fortune 500 companies use eVelopers as extension of their IT team to become cost effective and more responsive.

Exigen Services

www.exigenservices.com	info@exigenservices.com	+7(812) 702-5115	San Francisco, USA

Year of Aoundation	Headcount	Programming Languages
2000	1500	Java/ JavaEE, .Net, C#, C++, PHP

Exigen Services is a global IT company that provides core systems transformation services to clients in the Insurance, Financial Services, Telecom and Media industries as well as offshore development services to Commercial Software Solution providers. Together, Exigen Services and its clients manage project risk and focus on maximizing the value delivered throughout the project lifecycle. Centers of Excellence for industries and technologies and a global network of delivery teams are located across Eastern Europe, Baltic states, Russia, China and the U.S.

IBA Group

www.ibagroupit.com	info@ibagroupit.com	+375(17) 217-3952	Prague, Czech Republic

Year of Aoundation	Headcount	Programming Languages
1993	2705	Enterprise applications, SAP, Mainframe and Multiplatform C++, VC++, Java, Cobol, PL/1, RPG/400, ABAP/4, Fortran, Forth, Basic, Pascal, Smalltalk, Lisp, PLX, ADA, Prolog, Modula, Natural, Assemblers for different platforms.Scripting Languages Lotus/Java/VB Scripts, Unix Shell, REXX, Perl, PHP, and JCL.

IBA Group is one of the largest IT service providers in Eastern Europe performing onshore, near–shore and offshore projects with 2,500+ professionals. Headquartered in Prague, Czech Republic, IBA Group has offices in the US, Great Britain, Germany, Cyprus, Bulgaria, Russia, and Ukraine and software development centers in the Czech Republic, Belarus, and Kazakhstan. IBA was founded in 1993 as a software development company located in Minsk, Belarus. Today, IBA is an international group that serves customers in more than 40 countries across diverse markets and industries.

IFS

www.ifs-company.com	sales@ifs-company.com	+7(843) 200-0548	Kazan, Russia

Year of Aoundation	Headcount	Programming Languages
2010	12	C#, C++, .NET, PHP

IFS Company is your safe and reliable partner in IT services and software development. We have rich experience in software for retail brokerage companies, we know the brokers' needs and needs of their clients. Our goal is to help our customers to grow by improvement and upgrade their IT frontend and backend tools.

InfoShell

www.infoshell.ru	info@shell.ru	+7(495) 792-9235	Saint Petersburg, Russia

Year of Aoundation	Headcount	Programming Languages
2009	25	PHP, Java

InfoShell provides iPhone (iPad), Android, Windows phone and BlackBerry applications development. We create software of any complexity: Information applications; Promotional applications; Games and entertainment systems; Comprehensive solutions: website integration, intranet integration; Integration with CRM, ERP and accounting systems; Development of business management systems for iPad tablets; Any other application based on your ideas.

InfoWatch

www.infowatch.com	info@infowatch.ru	+7(495) 229-0022	Moscow, Russia

Year of Aoundation	Headcount	Programming Languages
2003	150	C++, C#, C, PL, SQL, perl, bash

InfoWatch is a group of innovative technology companies focused on developing and providing cutting-edge comprehensive technologies and services dedicated to Data Loss Prevention & Protection, Intellectual Property Protection, Customer Experience and Reputation Management, as well as Risk Management and Compliance solutions.

Inostudio Solutions

www.inostudio.com	info@inostudio.com	+7(863) 432-0318	Taganrog, Russia

Year of Aoundation	Headcount	Programming Languages
2006	71	ASP.NET, MSSQL, iOS, C#, PHP, Android, Oracle, MySQL, Sharepoint, Windows Phone

Inostudio Solutions is a professional software development company. We adhere to international standards and provide clients with high-quality products. Three facts about us: 1. We always act as partners suggesting the best solutions, minimizing costs, making things going right, working on solving your business problems not just creating software. 2. We are always around and ready to help you: no communication gaps, disappearances and misunderstandings. 3. We have very professional team and create reliable software providing a lifetime warranty for our software products.

Inotech

www.inotechgroup.ru	info@inotechgroup.ru	+7(812) 314-7694	Saint Petersburg, Russia

Year of Aoundation	Headcount	Programming Languages
2000	15	Delphi

Inotech company, software developer for telecom operators, was created in 2000. We are engaged in the implementation of integrated OSS / BSS solutions, system and application software, supplies the equipment, commissioning works, maintenance and development of products, staff training, audit and consulting on telecom market. The main product of the company is replicable, universal, converged automated billing system Platex® of the high functional level.

Inside

www.inside.ru	info@inside.ru	+7(495) 542-8808	Moscow

Year of Aoundation	Headcount	Programming Languages
1997	50	PHP, Html, Css, Javascript, Ajax, jQuery, Perl, C

The Internet agency "Inside" – is a leading developer of solutions in the area of software development, corporate style, web design, online advertising, e-commerce. Since 1997 our staff is a well-organized team of professional analysts, marketers, managers, artists, designers, programmers, translators and copywriters. Projects with real return are our profession, we are not limited in the development of a web resource on the Internet market, we are focused on long-term services for large corporate clients.

KB Panorama

www.gisinfo.ru | kb@gisinfo.ru | +7(495) 739-0245 | Moscow, Russia

Year of Aoundation	Headcount	Programming Languages
1991	50	C++, C, C#, Java, Delphi, Perl, .NET, PHP

Closed joint-stock company KB "Panorama" is formed in 2001 by association of the existing enterprises and divisions with the group of software developers "Panorama" known since 1991. The main activity of Joint-Stock Company KB "Panorama" is the development of geoinformation systems and technologies that are used by federal agencies, municipal services, agencies working with the land and real estate, road organizations, committees on architecture and construction, etc. Result of long-term activity of our company – more than 18 thousand users across Russia and abroad.

Kentor

www.kentor.ru | spb@kentor.se | +7(812) 325-1300 | Stockholm, Sweden

Year of Aoundation	Headcount	Programming Languages
1983	33	C#, Java, .Net, Oracle

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.

Krug-Soft

www.krugsoft.ru | krugsoft@krugsoft.ru | +7(841) 249-9775 | Penza, Russia

Year of Aoundation	Headcount	Programming Languages
2011	60	C#, C++, Java, .NET, PHP

KRUG-Soft, is a software development company in the «KRUG» Group of Companies. Nowadays many people associate the Group of companies «KRUG» with reliability of complex automation systems, with high responsibility in relations with partners and customers, economic stability of business.

Luxoft

www.luxoft.com | russia@luxoft.com | +7(495) 967-8030 | Moscow

Year of Aoundation	Headcount	Programming Languages
2000	5754	C, C++, C#, Java, PL/1, Python, Perl, PHP, Ruby, ASP.NET, Assembler, Flex, Visual Basic, scripting languages, COBOL, HTML, J2ME, JavaScript, JSP, PL/SQL

Luxoft, a member of the IBS Group, is an emerging global leader in application and product engineering outsourcing services for enterprise IT organizations and software vendors. Luxoft builds lasting partnerships with its clients, such as Boeing, Deutsche Bank, UBS, Dell, IBM, Sabre and other global leaders, based on the culture of engineering excellence, innovation, and deep domain expertise. Luxoft offers global delivery capability through its network of state-of-the-art delivery centers in North America, Central & Eastern Europe, and Asia.

Mallenom Systems

www.mallenom.ru | info@mallenom.ru | +7(820) 220-1635 | Cherepovets, Russia

Year of Aoundation	Headcount	Programming Languages
1999	25	C#, .NET, Java

Mallenom was established in 1999. We deal with: Optic-electronic traffic and registration control in transport; Industrial quality control; Decision support systems. We develop complex computer vision and analytic systems for automatization of various engineering processes and managerial decision support. Most developments of the company are applied in difficult production areas, on motor and railways, in offices and institutions.

Mapilab

www.mapilab.com | info@mapilab.com | +7(401) 299-1366 | Kaliningrad, Russia

Year of Aoundation: 2003
Headcount: 30
Programming Languages: .NET

The MAPILab company was founded in 2003 and has managed to take the leading position on the market of software products for Microsoft Outlook since then. Today it offers more than 30 products within a wide range - there are utilities for work automation and productivity improvement, components for developers, tools for teamwork. An important trend in the work of the company is developing software products for Microsoft Exchange Server. We create truly unique and high-quality solutions that take a firm position on the market of server extension software.

Monitor Soft

www.monitorsoft.ru | monitor@monitorsoft.ru | +7(495) 556-4595 | Zhukovsky, Russia

Year of Aoundation: 1993
Headcount: 58
Programming Languages: C++, C#, Java, Perl. Delphi, PHP

Monitor Soft, Ltd. develops and provides the aeronautical fixed telecommunication systems AFTN, flight navigation services, as well as the systems of fast-acting airport management and air traffic planning. In the development of the products specialists apply the advanced methods and programming techniques, implement integrated use of various hardware, produced both by global manufacturers and their own development. All these advantages along with the opportunities granted by the usage of the Internet and the Intranet, modern digital ground and satellite communication systems allow to create the distributed management information systems.

Movavi

www.movavi.com | job@movavi.com | +7(383) 363-2201 | Novosibirsk, Russia

Year of Aoundation: 2004
Headcount: 50
Programming Languages: C++

MOVAVI Inc. is an independent software developing company specializing in video area. We combine the high-level skills and wide experience of our technical professionals with the efficient approach to the market. We work to solve the present-day needs of our customers by providing the quality video products and support services.

Nautsilus

www.nautsilus.ru | info@nautsilus.ru | +7(495) 939-5872 | Moscow, Russia

Year of Aoundation: 1990
Headcount: 10
Programming Languages: C, Java

NAUTSILUS, Ltd. is an independent privately owned company established in 1990 by a strong team of real-time software engineers. The business area includes process automation software development under QNX (and Linux too), system integration, and industrial/building automation application implementation.

Neolant

www.neolant.ru | info@neolant.ru | +7(499) 999-0000 | Moscow, Russia

Year of Aoundation: 2004
Headcount: 312
Programming Languages: C#, .NET, C++, Java, Delphi, Visual Basic

The group of companies NEOLANT is the supplier of solutions for the enterprises of fuel-energy complex and state sector. Areas of company's activities: Development and implementation of information systems to decision-making support based on the integration of technologies: PLM, BIM, GIS, CAD, PDM, PM; Engineering and information support of oil-and-gas and nuclear objects on different life cycle stages; Permanent search for innovative solutions.

Netris

www.netris.ru | info@netris.ru | +7(495) 950-5525 | Moscow, Russia

Year of Aoundation: 2006
Headcount: 40
Programming Languages: Java, C++

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.

Nicotech International

www.nicotech.ru | info@nicotech.ru | +7(499) 500-3829 | Moscow, Russia

Year of Aoundation: 1991
Headcount: 41
Programming Languages: Java, ABAP, .NET, C#, PHP

Nicotech provides to its customers (ISVs, Business clients and Pubic organizations) commercially effective IT and software product development services based on the cutting-edge technologies which help to bring agility, innovation and productivity to our clients.

Norsi-Trans

www.norsi-trans.ru | info@norsi-trans | +7(499) 238-8153 | Moscow, Russia

Year of Aoundation: 1996
Headcount: 100
Programming Languages: C++, C#, Java

Innovative company involved in development, production and sale of computer information system for collection, analysis, recording, and processing of telecommunication network data. The Company has been working in this area since 1996 along with a number of leading domestic and foreign vendors, and markets hardware and software systems which ensure completion of tasks faced by telecommunication network systems.

Novel Software Systems

www.nprog.ru | info@nprog.ru | +7(383) 332-1676 | Novosibirsk, Russia

Year of Aoundation: 2006
Headcount: 10
Programming Languages: Java, Perl

Novel Software Systems company based in A.P. Ershov Institute of Informatics Systems develops high-quality informatics solutions for the scientific community. We provide a wide range of software development services and ready-to-implement products. Our company specializes in intelligent software development for analysis and recognition of signals, images and genetic texts.

Novosoft

www.novosoft.ru | info@novosoft.ru | +7(383) 330-3474 | Novosibirsk, Russia

Year of Aoundation: 1992
Headcount: 35
Programming Languages: C++, Oracle, Java

Novosoft LLC is a large international company with a major development unit in Novosibirsk, Russia. We provide high-quality, offshore software development services and Web design solutions at excellent rates. Besides, we are selling our program products for improvement of customer's business.

Optical Recognition Objectives

www.magtoapp.ru | info@magtoapp.ru | +7(499) 638-8659 | Samara, Russia

Year of Aoundation: 2003
Headcount: 15
Programming Languages: iOS, Ruby, Android

Optical Recognition Objectives LLC is focused on development of technology and software for pattern recognition to match the market needs in applications for human face and other complex objects recognition. The Company made outstanding pattern recognition technology GABITUS based on the novel artificial neural network model. GABITUS is the core engine for existing and upcoming Company products.

Oracle Development SPB LLC

www.oracle.com/ru | grigori.labzovsky@oracle.com | +7(812) 334-6000 | Saint Petersburg, Russia

Year of Aoundation: 1999
Headcount: 321
Programming Languages: Java, C++, C

Oracle provides the world's most complete, open, and integrated business software and hardware systems. Its product strategy provides flexibility and choice to customers across their IT infrastructure. The St. Petesrburg Development Center (SPBDC) specializes in creating computer software, engineering environment tools, and providing infrastructure solutions.

PITERSOFT, LLC

www.piter-soft.ru | info@piter-soft.ru | +7(812) 333-0860 | Saint Petersburg, Russia

Year of Aoundation: 2005
Headcount: 14
Programming Languages: 1C

PiterSoft presents products and services in the region of business-process automation, development and implementation of software, electronic document circulation systems, management technologies based on «1C:Enterprice» using process management technologies. «PiterSoft» is a partner of «1C». It has status «Manufacturing competence center». The company works with more than 60 partners, distributing «PiterSoft: Process management» software. It is the member of audit-consulting group «SPG».

PROGNOZ

www.prognoz.ru | prognoz@prognoz.ru | +7(342) 240-3663 | Perm, Russia

Year of Aoundation: 1991
Headcount: 1619
Programming Languages: C, C++, C#, JavaScript, Fore (proprietary), ASP.NET, Java, Flash, Web Services

PROGNOZ is an international company that has been working in the IT market since 1991. Today, we are one of the top Business Intelligence software vendors in Russia. PROGNOZ Platform, our flagship solution, is designed to develop modern Business Intelligence and decision support systems to fit the needs of industrial enterprises, national and regional governments, banks, and financial sector participants.

QarkSoft

www.qarksoft.ru | inbox@qarksoft.com | +7(383) 380-2263 | Novosibirsk, Russia

Year of Aoundation: 2012
Headcount: 6
Programming Languages: Scala, Java, C#, Nemerle, C++

Company QarkSoft - is a highly skilled team of programmers with extensive experience of working together. We love and know how to program. We are pleased to take on the programming tasks in your projects and are ready to implement your ideas.Why us? Quality(We always test multiple times developing solutions), 100% satisfaction guarantee terms(we guarantee the execution of the project on time),we do not have layer of ineffective managers, full transparency of Customer-Contractor collaboration. We are good at: Unified communications, Traffic management,Mobile app.

Quorus ACS

www.quorus.ru | market@quorus.ru | +7(343) 272-1092 | Yekaterinburg, Russia

Year of Aoundation: 1989
Headcount: 100
Programming Languages:

Quorus ACS is the most experienced and skilled system integrator of information solutions independently from its complexity. Quorus` partners are banks, industrial and state enterprises. "Quorus ACS" specialises on computational, telecommunicationsand engineering designing and implementation; sevcice, IT consulting and audit.

RITG

www.ritg.ru | cto@ritg.ru | +7(842) 246-2226 | Ulyanovsk

Year of Aoundation: 2006
Headcount: 35
Programming Languages: C#, ASP.NET, PHP, C++, Java, J2EE, Objective C, 1C-Bitrix

Holding «Russian IT Group» was founded in 2006. Since the beginning, holding promotes advanced information technologies to Russian and international markets. Our team is a fast growing player on the World IT-market. Our mission is to improve the quality of information technologies used in your company to the level of highest international standards. We are looking forward to make the business of our customers dynamic, informative and flexible with the help of development and implementation of effective and innovative solutions to improve the efficiency and competitiveness of customers

Rus Wizards

www.ruswizards.com	info@ruswizards.com	+7(929) 820-6238	Taganrog, Russia

Year of Aoundation	Headcount	Programming Languages
2009	40	.NET, C#, Java, PHP, Ajax, Objective C

Rus Wizards is a software developing company that holds a Microsoft certificate in Data Management and Business Intelligence Solutions and has proficiency certificates for MS SQL Server 2005 DBA/DBD, ASP.NET 4.0 and MVC. The company develops mobile applications for iPhone/iPad, Android and Blackberry. Rus Wizards proficiency lies in DB solutions, Web solutions, Reporting solutions and Mobile apps.

SCANEX R&D Center

www.scanex.ru	scanex@scanex.ru	+7(495) 739-7385	Moscow, Russia

Year of Aoundation	Headcount	Programming Languages
1989	200	C++, C#, Java, Perl

SCANEX Research and Development Center is the leading Russian company on the remote sensing market that offers a complete set of services ranging from acquisition to thematic processing of Earth observation images from space. Today, ScanEx is the only Russian company that has signed license agreements with the top world remote sensing Operators for direct data acquisition from SPOT, FORMOSAT, EROS, UK-DMC2, RADARSAT satellites series to UniScan™ ground stations, enabling regular near real-time monitoring of territories of Russia and the CIS countries with spatial resolution from hundreds to less than one meter.

Sibers

www.sibers.ru	info@sibers.ru	+7(383) 330-6626	Novosibirsk

Year of Aoundation	Headcount	Programming Languages
1998	130	PHP, .NET

Sibers is a software development offshore center. It is one of the largest players representing Russia on this market. At present the company is in Top Three companies on the online service marketplace called Elance, which is providing hundreds of offshore software companies with various projects. To support the its intentions, Sibers has been able to build teams of different scale with diverse exchange rates. Sibers team consists of CS-major graduates, experienced scientists and IT professionals with BS/MS from top Russian universities.

Sigma Technology

www.iosotech.com	company@iosotech.ru	+7(495) 761-2487	Moscow, Russia

Year of Aoundation	Headcount	Programming Languages
2001	9	.NET, Fortran

SIGMA Technology is a software company in the private sector which operates in the field of numerical optimization for complex technical systems. The company is located in Moscow (Russia). The main goals are: Development of optimization strategy and software (IOSO Technology algorithms family) as well as Real-life optimization problems solution in cooperation with other companies. SIGMA Technology was founded in 2001 on the basis of IOSO Technology Center. Developments of the company are based on 25 year operational experience in the fields of Turbomachinaryand Aerospace.

SimbirSoft

www.simbirsoft.com	info@simbirsoft.com	+7(842) 244-6691	Ulyanovsk

Year of Aoundation	Headcount	Programming Languages
2001	95	Java, C++, .NET (C#), PHP, Android, iOS, WinPhone, Ruby, Python

Founded in 2001 SimbirSoft Ltd. provides custom software development and testing services for the companies from the USA, the Russian Federation, Japan and European countries. The company has a big experience in developing document workflow and project management systems, CRM, cloud systems, financial and statistics products, web and mobile applications as well as IT-consulting services. The key technological competences are Java, C++, .NET (C#), PHP, Ruby, Android, iOS, WinPhone.

Smart-soft.ltd

www.smart-soft.ru | info@smart-soft.ru | +7(495) 615-5057 | Kolomna, Russia

Year of Aoundation: 2003
Headcount: 28
Programming Languages: C++, C, Java, Delphi, Visual Basic

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.

Soft-Consult Ltd.

www.soft-consult.ru | postmaster@soft-consult.ru | +7(812) 534-8481 | Saint Petersburg, Russia

Year of Aoundation: 2001
Headcount: 15
Programming Languages: C#, C, C++, VB.NET, Java, JavaScript,

Soft-Consult provides consulting services in IT and software development, covering a wide amount of customers' needs, beginning with auditing and ending with developing of complex information systems. The major lines of our activities are the following: Developing document management systems; Developing geographic information systems; Developing distributed systems for business processes automation; Developing computer-integrated telephony applications; Developing mobile applications.

SoftDev SPb

www.softdev.spb.ru | gkovaleva@softdev.spb.ru | +7(812) 325-7422 | Saint Petersburg, Russia

Year of Aoundation: 1994
Headcount: 55
Programming Languages: C++, C#, Java, Perl, .NET, PHP, Visual Basic

Headquartered in St.Petersburg, Russia, SoftDev SPb has been rendering services to its customers for over 18 years. Extensive experience of working with companies worldwide enabled our company to amass a wealth of industry-specific knowledge, which, combined with proficiency in various programming technologies, makes SoftDev the perfect choice for outsourcing even the most complex software development tasks.

SoftReactor

www.softreactor.ru | info@softreactor.ru | +7(812) 336-6066 | Saint Petersburg, Russia

Year of Aoundation: 2010
Headcount: 7
Programming Languages: PHP, Java, Perl, flex

SoftReactor is a Saint-Petersburg based software development company founded in 2010 and is growing since that time. Specialization of the company includes Internet applications, Web development, Mobile applications, Web programming, Business automation, Geoinformation technologies, Social network applications and Internet solutions.

Speech technology center

www.speechpro.ru | stc-spb@speechpro.com | +7(812) 325-8848 | Saint Petersburg, Russia

Year of Aoundation: 1990
Headcount: 356
Programming Languages: C#, C++, Java, C, Python, PHP, Matlab

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

Tecom Group

www.tecomgroup.ru | info@tecomgroup.ru | +7(831) 432-6687 | Nizhny Novgorod, Russia

Year of Aoundation: 1992
Headcount: 250
Programming Languages: C, C++, C#

Tecom is headquartered in Melbourne, FL (USA). The company's engineering centers are located in Nizhny Novgorod (Russia) and Arzamas (Nizhny Novgorod region). Our Quality Management System is certified in accordance with ISO 9001-2001 and CMM Level 3 standards. Main business activities of the company: Software and hardware design, development, testing and maintenance in networking, telecommunications, broadcasting, microwave communications and embedded systems; Implementation and system integration of software and hardware systems in broadcasting, telecommunications and ERP; IT consulting.

Teknavo

www.teknavo.com | info@teknavo.com | +7(812) 336-3612 | London, UK

Year of Aoundation: 2006
Headcount:
Programming Languages: C++, Java

Teknavo designs, builds and manages front office technology applications for the financial services sector. We focus on two important areas: We leverage our in-depth knowledge of the industry and its technical challenges and have access to the best practitioners both on- and offshore. From the ground up, we build custom-made onshore/offshore organizations with a flexible workforce model that augments the existing in-house technology capability, operating in sync with, rather than at odds with, your current operations.

Titan - information service

www.speereo.com | spr-feedback@speereo.com | +7(812) 327-4455 | Saint Petersburg, Russia

Year of Aoundation: 1998
Headcount:
Programming Languages: C++, MS

Titan - Information Service JSC is an owner and developer of Speereo continuous speech recognition system. Since 2002 Company has been developing mobile applicaitons and systems enhanced with speech recognition. Speereo Speech Recognition possesses some unique features that set it apart from competition. Since 2011 Company started a new project: universal remote with voice recognition that allows users to control misc. devices with voice commands.

UniPro

www.unipro.ru | marketing@unipro.ru | +7(383) 332-6061 | Novosibirsk, Russia

Year of Aoundation: 1992
Headcount: 70
Programming Languages: C++, Java

Founded in 1992, UniPro started with 16 specialists participating in Sun Microsystems projects. Since then, UniPro has steadily grown and has become a reliable partner in the IT offshore outsourcing market. Now it's a full service IT company, having successfully completed more than 60 projects in a wide range of technologies. We deliver our clients the best IT solutions through the world-famous creativity of Russian software developers, backed up by their excellent educational background and the Russian R&D tradition.

Unisoft Plus

www.unisoftplus.com | contact@unisoftplus.ru | +7(383) 363-7001 | Novosibirsk, Russia

Year of Aoundation: 1990
Headcount: 16
Programming Languages: C#

Unisoft plus is an independent software development and research company that works in the international market since 1994. Unisoft plus offers tailor-made software development in two broad categories: Business applications including e-business + Technical and scientific applications AND Reengineering and porting of existing legacy software to new platforms/environments + Development of off-the-shelf software.

Wave Access

www.wave-access.com | info@wave-access.ru | +7(812) 326-8626 | Saint Petersburg, Russia

Year of Aoundation: 2000
Headcount: 100
Programming Languages: C#, C++, .NET, Java, JavaScript, Perl

WaveAccess is a software company developing business solutions since 2000. Headquartered in the USA with offices in the UK, Russia and the Ukraine. Today, WaveAccess is a provider of advanced automation technologies for businesses all over the world. At Wave Access we develop custom software for Internet Enterprise, Medical markets and Microsoft Dynamics CRM.

WebSoft Development

www.websoft.ru | websoft@websoft.ru | +7(495) 514-0436 | Moscow, Russia

Year of Aoundation: 1999
Headcount: 50
Programming Languages: C++, C#, Java, JavaScript

WebSoft, founded in 1999, is the leading Russian independent software vendor that develops a comprehensive suite of software products for e-Learning and humal capital management. Our software supports the processes of e-Learning, authoring electronic content, employee assessment, testing, competency management, knowledge management, talent management, career development, and personnel recruitment.

Yumasoft

www.yumasoft.com	info@yumasoft.com	+7(812) 334-0805	Saint Petersburg, Russia

Year of Aoundation	Headcount	Programming Languages
2003	25	C#

Yumasoft is a well-known, growing outsourcing software development company that has been in this business since 2003. Our main development centers are in Russia and Belarus with a team of more than 60 highly educated and experienced software engineers, who are ready to take on even the most complex projects and who deliver top quality software products and solutions, maintenance, and support. Our experience, expertise, and competence have made us one of the most reputable software development companies in Europe and the US.

Dom Programm

www.domprog.com	info@domprog.com	+7(812) 320-2136	Saint Petersburg, Russia

Year of Aoundation	Headcount	Programming Languages
2001	14	C#, .NET, PHP

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.

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