

*Materials of Conferences***EVALUATING THE EFFECTIVENESS OF R&D EXPENSES**

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The Russian Ministry of economy expects that the country still goes to innovative development. According to the most optimistic, innovative scenario of further development, the Russian economy is expecting a breakthrough in improving the efficiency of human capital and the development of high- and medium-enterprises. Among other achievements, the goal of spending on R & D to 3% of GDP is a very vague prospect.

In recent years Russia's competitiveness dropped below the level of Brazil, India and China. According to the world economic forum's report on the competitiveness of Russia in 2011, growth of the Russian economy is only 4–5%, in spite of high oil prices. According to research by the General Electric (GE), innovation acts as the main engine for economic development and competitiveness.

In the annual report of «The 2012 EU Industrial R&D Investment scoreboard view» prepared by the JRC presented the results of the work of 1500 largest companies. The sample consists of 405 companies based in the EU and 1095 companies based in other countries for the fiscal year 2011. The total investment volume for the reporting period amounted to 7,6% compared to 4% in 2010. Thus, the upward trend, which takes place in the beginning of 2010 after a sharp fall in 2008–2009, as a result of the global economic and financial crisis, testifies to the fact that companies are gradually returning to the pre-crisis state. The first place in the ranking of sectors, in which the growth of R&D in general for 2011 is observed, belongs to the banking sector and machine building (21,8 and 16,5%, respectively).

According to research presented in a report prepared by a leading U.S. consulting firm Booz & Company, the world's R&D expenses increased by 9,6% to \$603 billion from \$550 billion a year earlier, reaching the pre-crisis level. In 2011 the greatest increase in spending on research and development was observed in the electronics industry – 28% of world spending. Analysis of the geographical distribution of expenditure on innovation (as opposed to R&D spending is the technology and development, adopted by the market) has shown that companies with headquarters in the U.S. and Canada, increased innovation budget by 9,7%, European – 5,4%, and Japan – only 2,4%.

Global spending on science and research and development will increase in 2013 by 3.6% to reach

\$2.2 trillion, predicts U.S. research organization Battelle Memorial Institute.

The undisputed leader in this field for 40 years in a row are the United States: their spending on science and research and development in the next years will amount to one-third of the world total cost – \$605 billion, or about 2,7% of U.S. GDP. China is to spend \$183 billion (1,4% of GDP) on research and development in 2013 as compared to the \$141,4 billion it spent in 2011 and will be in second place world-wide, surpassing Japan. R&D spending in Japan will grow from \$144 billion to \$150 billion (3,3% of GDP).

Asia's share of global R&D spending continues to grow. This tendency was even five years ago, primarily due to the fact that China has increased spending on science by an average of 10% per year.

The «World Intellectual Property Indicators for 2012» report, published by the World Intellectual Property Organization, indicates that the highest number of applications received for the grant of patents for the first time was from China, which for the first time last year overtook the U.S. and Japan.

According to the research's results, the number of submitted applications for patents throughout the world in 2011 has grown by 7,8%, the growth rate of over 7% for the second consecutive year. Similarly, the number of filed applications for utility models, industrial designs, registration of trademarks has increased by 35%, 16% and 13,3%, respectively. As for the areas in which the applications were filed in 2011, computer technology took the lead – 127 thousand applications. The number of registrations for innovative solutions in the area of renewable sources of energy increased by 8%.

The number of filed applications for trademarks in 2011 amounted to 4,2 million worldwide, which is an increase of 13,3%. The greatest increase in the number of applications for trademarks mentioned in the patent office of China – 31,2%, Brazil – 21,6% and the United Kingdom of 16,4%, ITAR-TASS reported. According to the number of patent applications in 2012, the rating of countries in the world indicates that Russia takes the 8<sup>th</sup> place with the total number of patent applications 41,4 thousand. The three leaders invariably include China (526,4 thousand.), USA (503,6 thousand) and Japan (342,6 thousand).

International business school INSEAD and World Intellectual Property Organization (WIPO) presented an analytical report «The Global Innovation Index 2012». This year, Russia was ranked 51 on the list of 141 countries. From a formal point of view it is six places higher than last year, but due to changes in the rating's methodology the real figure

could be much worse. The top three are still among Switzerland, Sweden and Singapore.

Among the BRIC countries Russia is second only to China (34<sup>th</sup> place in the overall ranking), and among the countries of the CIS – second only to Moldova (49<sup>th</sup> place in the overall rankings.) As the report notes, the strengths of Russia related to the quality of human capital (43 seats), business development (43), the development of knowledge (32). Hinder innovation imperfect institutions (93rd), the performance of the internal market (87) and the results of creative activity (84).

Gross domestic expenditure on research and development in the Russian Federation in 2011 amounted to 610 426,7 million rubles in actual prices, or 1,12% of GDP. This level is above the indicators of 2005 and 2006, respectively. However, there is a trend of costs reduction from 2009. At the same time, the total level of funding for R&D in the EU as a whole in 2011 amounted to 2,03 per cent. This significantly exceeds the same indicator for Russia even without taking into account differences in the volume of GDP. Even the financing structure in Russia and European Union countries also varies significantly. The main source for financing research and development for our countries remains the state budget (67,1 per cent in 2011). At the same time, the share of funds attributable to the organization of the business sector in 2011 was only 27,7 per cent, (which is by 2,2 percentage points above the respective period of 2010). Over the last ten years, this proportion varied from 26,6 (2009) to 33,1% (in 2002), having a general tendency to decrease. At the same time the R&D's structure of financing in the European Union countries varies significantly from the Russian one. The share of business sector in funding research and development in the EU as a whole since 2001 to present time ranged from 53,9 to 55,1% and now makes about 54%.

It is also necessary to take into account how R&D allocates funds by sectors. While in most developed countries, a practice of work with public funds mainly in the public sector and in the sector of higher education (in a different relationship between them: in Europe – mainly in the sector of HPE, the U.S. and the Asia-Pacific region – mainly in the public sector), in Russia the «development» of public spending on R&D is carried out mainly in the commercial sector. For instance, if the share of public funds for financing R&D and the business sector is consumed from 5,4 in Japan to 24% in the U.S. in developed countries, it means in Russia this share exceeds 55%.

Thus, there is a situation where on one hand, a very sluggish part of the commercial sector in the financing of research and development, and on the other – the commercial sector consumes the bulk of the budget. While the research funding in the public sector, including the fundamental, is the basis of scientific and technical progress, the higher education sector remains poor.

Russian innovative development, in contrary, is a major cause of the current situation in the research and development field. On one hand, it hasn't gained a significant scientific and technical potential over the years, but on the other – it is a weak link between the research and development results and marketing.

As soon as the entrepreneurs come to realize the need for the implementation of the innovation, the Russian economy will have an opportunity to move to innovative development. But this is possible only in highly competitive markets.

The subject of production innovation is closely related to the topic of demand, therefore there is a need for «forced innovation» in the context to promote their use. In 2011 a number of legislative changes were introduced to facilitate the development of business and investment.

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#### THE HUMAN CAPITAL EFFICIENT USE UNDER THE INNOVATION AND INDUSTRIALLY CONDITIONS DEVELOPMENT OF THE REPUBLIC OF KAZAKHSTAN

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**The Relevance of the Study.** The efficient economic activity organization at all the levels of the country's national economy, under the intensive globalization processes conditions, is acquired the crucial significance. This is particularly evident, and they are revealed in the periods of setback in the production, the financial instability, and the inflation resurgence in the world economy. The negative consequences upsurge for the economic crisis most countries in 2008, having caused the inflation rise, and the food security thread are the complete confirmation of this.

So, the research topic has already become even more urgent, as a result of the Kazakhstan's Innovation and Industrially Development Strategy for the period of 2003–2015 years, the main objective of whose is to create the alternative, independent of