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INNOVATIVE REGIONAL DEVELOPMENT: NEEDS FOR DIVERSIFIED ECONOMIC GROWTH OF SIBERIA UNDER THE CONDITIONS OF REINDUSTRIALIZATION

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The article investigates the essence and the priority of economy reindustrialization in Siberia taking into accounts the needs and characteristics of the innovation development of raw materials regions. The issue of developing the theoretical approaches to the formation of innovative regional development strategy is in the foreground, taking into account technological modernization priorities in Siberia. The aim of the given work is to determine the role of the rocket and space industry in the sectoral structure of Siberian regions as an essential component of the military-industrial complex (MIC) that is traditionally prioritized and has the potential for industrial growth to diversify the economy. We have analyzed the major milestones, the role and the problems of the defense industry in the USSR and the situation in modern Russia. Moreover, we have defined the role of the rocket and space industry in the MIC structure and engineering in the domestic economy, highlighted problems and development targets. Methodological basis of research and preparation of this work involves the fundamental researches of Russian and foreign scientists in the field of regional economy, innovation development and economic theory. The article gives the analysis of the reindustrialization experience in Japan and in other countries. It presents the definition of innovative development and innovation in the context of the key role of technological core of the regional systems development. Besides, the work describes the essence and direction of the economy diversification in the reindustrialization process of Siberia and a number of important aspects and problems of smoothing intraregional social and economic differences with diversification opportunities. The article presents the investment indices in technological innovation and modernization initiatives in major industries of Krasnoyarsk region, as well as the comparative evaluation with other regions of the Siberian Federal District (SFD). The analysis defines the role of the defense industry sectors in the innovative economy development of Siberia and their influence on the processes of new industrialization in other branches. In addition our task was to determine the priorities and challenges of innovative development and the economy diversification in Siberia, the main directions of the administration activities. That allows to solve the problems of regional innovative development and the industry modernization.

Keywords: innovative development, reindustrialization, regional economy diversification, the military-industrial complex (MIC).

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ИННОВАЦИОННОЕ РАЗВИТИЕ РЕГИОНА: ПОТРЕБНОСТИ ДИВЕРСИФИЦИРОВАННОГО РОСТА ЭКОНОМИКИ СИБИРИ В УСЛОВИЯХ РЕИНДУСТРИАЛИЗАЦИИ

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Исследована сущность, приоритеты реиндустриализации экономики Сибири с учетом потребностей и особенностей инновационного развития регионов сырьевой направленности. Актуализируется вопрос о развитии теоретических подходов к формированию стратегии инновационного развития региона с учетом модернизационных технологических приоритетов Сибири. Целью данной работы является также определение роли ракетно-космической отрасли в отраслевой структуре сибирских регионов как важнейшей составляющей оборонно-промышленного комплекса (ОПК) – традиционно приоритетного и имеющего потенциал

промышленного роста направления диверсификации экономики. Проанализированы основные вехи, роль и проблемы развития ОПК в СССР и состояние в современной России. Определена роль ракетно-космической отрасли в структуре ОПК и машиностроения в отечественной экономике, выделены проблемы и целевые ориентиры развития. Методологическая основа исследования и подготовки данной работы включает фундаментальные исследования российских и зарубежных ученых в области региональной экономики, инновационного развития, экономической теории. Проанализирован опыт реиндустриализации Японии и других стран. Представлено определение инновационного развития и инновационного потенциала в контексте ключевой роли технологического ядра развития региональных систем. Раскрыта сущность и направления диверсификации экономики Сибири в процессе реиндустриализации. Рассматривается ряд важнейших аспектов и проблемы сглаживания внутрирегиональных социально-экономических различий с использованием возможностей диверсификации. Представлены показатели инвестиций в технологические инновации и модернизационные инициативы по основным отраслям Красноярского края, дана сравнительная оценка с другими регионами Сибирского федерального округа (СФО). В результате анализа определена роль отраслей ОПК в инновационном развитии экономики Сибири, влияние на процессы новой индустриализаии в других отраслях. Определены приоритеты и проблемы инновационного развития и диверсификации экономики Сибири; основные направления деятельности администрации, позволяющие решить задачи инновационного развития региона, модернизации промышленности.

Ключевые слова: инновационное развитие, реиндустриализация, диверсификация экономики региона, оборонно-промышленный комплекс (ОПК).

Introduction. The formation of an innovative component of the economy that meets the objective requirements of introducing the scientific achievements into production, as well as modern challenges of complex international economic and political environment, has defined the need to find methodological and theoretical approaches and tools of the new industrialization of the Russian economy. The political leadership of the country, our economic authorities have designated reindustrialization of Russia as the basic trend of its economy modernization. That is a new stage of industrial development and industrial policy based on the latest technological order. The main goal of reindustrialization is the restoration of the role and place of the industry in the national economy as its basic component, as well as its diversified growth through the high-tech industries development. In the Academician E. M. Primakov's opinion: "The main features of the new industrialization are the diversification of the economy structure due to the growth of manufacturing industry share; ensuring this process with properly qualified labor supplies; financial system modernization to the needs of reindustrialization; the development of "channels" or "elevators" linking scientific potential of industry with production; systems import of high-technologies ..." [1]. Reindustrialization is becoming a priority trend in connection with the political crisis and the sanctions limiting the Russian economy. The given economical processes are necessary to ensure domestic production; it is the condition for the industrial economy development in response to the received impetus and forced departure of foreign competitors. New reindustrialization is relevant in deciding the matter of significant intraregional and interregional differentiation, as well as improving people's life quality including unurbanizied territories and the ones having mainly raw material production. Reindustrialization is designed to enable the existing potential for industrial growth and development in a number of traditional prioritized industries for Russia and Siberia.

Innovative region development. The purpose of regional innovation policy are regional economic stabilization and growth, the achievement of the conditions for effective execution and rational use of the budget at the expense of conserving and developing scientific and technological capacity and creating favorable conditions for innovative activity. Innovative development places the region to a qualitatively new level of social and economic position, changes in life quality indices, the formation of the innovation system. Any innovative development is not only a major innovation process but also the development of the factors and conditions system necessary for its implementation, i. e. innovation potential. In this regard, by innovative potential we mean regional opportunities for creation, development, introduction and distribution of useful innovations (new knowledge, ideas, technologies, products, services, management practices, processes, social and cultural patterns, etc.) [2]. Under the conditions of globalization and international competition, innovative way of Russian economy development has in fact no alternative. The relevance of regional innovative development is motivated not only by external challenges, but also internal problems. The continuing high level of differentiation of social and economic development in the Russian Federation entities leads to annual losses of 2–3 % of GDP. Furthermore, these are innovation activity and innovation sensibility of regional economies and industries on which strategic competitiveness of Russia in the global economy depends.

Innovative development of the region is initiated by a qualitative upgrading and the identification of the factors that stimulate technological development and reequipment. In this context, reindustrialization is a condition for the region innovation development. The significant structural changes in the economy, "technological advances", are required, that ones that Joseph Schumpeter called "creative destruction".

The military-industrial complex (MIC): the role in the economy of Russia, the state and reindustrialization prospects. Military-industrial complex (MIC) has been an essential component of the Russian economy model for about 300 years. In Soviet

times, the costs on MIC accounted for 8 % of GDP according to official figures, over 15–20 % in fact, up to 25 % according to Western experts. For comparison, the costs of Japan were 1 %, Germany – 3 %, USA – 6 % [3]. The best level of costs is considered to be from 4–5 % of GDP. According to the estimation available, up to 13 % of GDP had been spent on the Soviet military-industrial complex by the end of 1980s, which provided 30 % of GDP for the period of the USSR collapse. World practice has shown that the normal adaptation rate of the military industry to the civilian one doesn't constitute more than 5–7 % per year. The pace of economically non-efficient conversion in Russia was several times higher. Military costs fell by 90 %. In 1998 production volume of MIC products was 19.2 % of the one in 1991, providing capacity utilization only for 10–15 % [4]. Military industry includes 9 industries, rocket and space production accounts for 60 % of total output. Lack of a tool to minimize costs later presented a contrast to the principles of creating the western economy in the1980s. The restructuring of the USA military sector in those years was focused on borrowing high-tech achievements of civil engineering in the production of military equipment. In the USSR, on the other hand, high-tech production didn't exist outside the military-industrial complex. These days, the reverse model of transition from extensive to intensive (innovative) development of the Russian economy is being implemented, in which MIC industries are the basis of technological development, diffusion of knowledge in the production of civilian goods. Rocket and space industry is a MIC priority and perspective. It plays a leading role in providing military and economic security, thus exerting significant influence on the level of military, economic, and scientific potential of Russia. In 2014, Russia kept the first place in the number of starts according to the information policy service of the Federal Space Agency (Roskosmos). Accordig to Deputy Prime Minister Dmitry Rogozin, relevant global challenges and problems are issued for the development of Russian space exploration. At the enterprises of this industry a loose technological discipline persists, sometimes criminal negligence happens. At the same time, there is no material and administrative responsibility of general executives in the industry. The reform of space industry is going on. The main industries of the Russian rocket and space complex are expected to be replaced from the central part of Russia to Eastern Siberia and the Far East after the establishing United Rocket and Space Corporation. Russian rocket and space industry has to double production capacity by 2020 compared to 2011, while the share of Russia in space technology world production should be increased from 10.7 % to 16 %. The State Program of space activities development up to 2020 published this statement on the website of Roskosmos. Searching for the growth factors of competitiveness, along with the task of diversified growth of the Russian economy are necessary.

Formation of innovative development strategy of Siberia with an allowance for the technological priorities, the experience of Japan and other countries. Taking into account technological modernization priorities Siberia, the development of theoretical approaches to the formation of the region innovative development strategy becomes an important issue for the space industry. 30 technology platforms are approved to be priority directions of scientific and technological development of Russian business by the resolution of the Government Commission on High Technology and Innovation [1]. On the territory of Siberia, in Krasnoyarsk region the technological platform "National Information Satellite System" will be placed. In accordance with the State Program "Industry Development and the Increase of its Competitiveness" approved as amended Decree of the Government of the Russian Federation in January 2013, a priority objective is the transformation in 2020 of "scientific and technical, as well as industrial and technological potential of MIC in efficient innovative resource supported by state by means of rapid technological modernization, implementation of its competitive advantages, and the development of human resources of military-industrial complex". A number of leading researchers have expressed the view that the economy of Russia has accelerated in 2014 despite the political crisis but further development is possible only at the beginning of real reforms that facilitate doing business. Reindustrialization actually includes the essential condition for the innovative component development of any economic system, i. e. technological innovations, and the business environment formation as an essential and necessary condition for innovative development. In modern approaches and programs of regional management and development the most important point is the regional competitive position and the formation of the national innovation system. These issues are interrelated and interdependent. Both classics and contemporary theorists A. Smith, D. Ricardo and D. S. Mill, M. Porter, S. Cohen, J. Sachs, A. Hart, A. I. Tatarkin, A. Z. Seleznev and other foreign and domestic authors determined the factors and the nature of regional competitive advantages, the increasing role of competition and cooperation in the regions for reasons of technological development to knowledge-intensive industries.

After the global crisis in 2008–2009 the economy of Russia had been mostly restored by 2012, with an average annual growth of GDP about 4 %. Then the growth rate began to decline and by the autumn of 2014, according to the Minister of Economic Development of the Russian Federation A. Ulyukayev, consumer price inflation was 8.1 %, economic growth was 0.8 %. In this case, there is the rise of industrial production in Russia in the second quarter of 2013. Development Center experts of HSE noted that the highest rates are in the manufacture of vehicles (airplanes, helicopters, ships, cars and so on.) purchased by the state and state-owned companies. This causes a revival in related industries (metal, plastics and components production). In the rest of the industry there is stagnation. From 1990 to 2008 about 70 thousand industrial enterprises were closed [5]. According to the theory of innovation cycles by I. Schumpeter and the new economic paradigm by S. Y. Glazyev world economic system is on the threshold of the sixth economic set-up. Innovations are the basis of economic development on a transitional stage, in connection with scientific and

technological progress there is a transition from lower to higher and progressive orders. These processes determine the key technologies and new requirements for training human resources. The industrialization of the USSR that took place in the thirties of the last century was also due to the transition to a new technological set-up, which allowed to form the productive forces according to the new demands of the global economy.

Some other examples of reindustrialization and the factors determining economic growth are noteworthy, e. g. the postwar economic reform in Japan (1950–1960s) and the phenomenon of "Japanese miracle". Japan managed to catch up with other major industrialized countries in a short time by importing inventions and mastered technology and technological knowledge. By the end of the 40s the country had made significant progress in improving the skills of the workforce, developing the creative abilities of managers, which allowed to introduce and implement modern foreign technological advances without much difficulty and to put into practice their improvement on this basis, as shown by an example of the electronics industry. Over the next five years, all this led to a steady increase in labor productivity. Japan annually increased labor productivity by 9.9 % [6]. Currently, Russia embarked on the path that Japan had already passed by 2000 in terms of identifying development trends in the "information society", the preparation and adoption of necessary information legislation, optimization of state administration with the use of information networks and the Internet (the program "Electronic Government"), as well as provision with the legal mechanism for citizens' access to information and protection of citizens' personal information, the transition to broadcasting in high definition, ensuring mobile services of third generation. The first steps to the development of its own missile technology were made in Japan in the early 50s in Research Institute of Industrial Technology at the University of Tokyo that had a special rocketry laboratory. 130 innovative trends are defined as the reference points to 2035. These are crucial technologies that affect the level of economy competitiveness and the solution of social and economic problems in Japan.

We should also mention the experience of industrial development and modernization of the economy of Korea, Singapore and the Chinese model in the 1980s and 1990s. The main objective of China's economic reform during this period was to ensure long-term sustainable economic growth based on the creation of new private enterprises and the involvement of the maximum possible contingent of economically active population by abandoning of total state ownership domination, attracting foreign investors in the Chinese market [7].

In contrast to the US experience with large resource potential the policies of universal coverage of all lines of innovative industrial development are realized. With all the variety of innovative development directions and limited resources there is a selective approach to the industry development and the introduction of advanced science technologies to most market segments. Sustainable competitive advantages are achieved in many high-tech industries. Back in the 70s in Japan the pattern of "computerized town" was introduced as the analogy of technology parks implemented today in Russia in the sphere of high technologies [6]. The development of Krasnoyarsk region within the priority of long-term objectives of regional development in Siberia involves interaction of regional public authorities, local government and business in solving prioritized long-term objectives. The latter are set out in the economic development strategy of Siberia: providing large-scale technological reequipment; radical modernization of vocational education to meet the requirements of innovative development in modern society; providing proactive development of transport, energy, construction and social infrastructure; developing the sector of natural raw materials in-depth processing; regional technological development giving the priority to ecologically clean production technologies; the formation of effective mechanisms for the promotion of innovative technologies in all sectors of the agribusiness industry and other "modernization" objectives. The most important aspect is to change the stereotypical thinking and to form a new entrepreneurial culture focused on the search for innovative ideas with high market potential and social effects for deciding the problems of the region.

Identifying the key factors of reindustrialization, economic growth and differentiation in the existing models of the last two decades in different countries, one should point out the technological core of the fifth technological set-up, the development of communication links and technologies, the information revolution, the emergence of the knowledge reproduction sector. Social economic formation is determined now as a new stage of economy development, i. e. the economy of knowledge. The growing role of knowledge was observed in their time by D. Bell, A. Touraine, A. Toffler and other theorists of post-industrial society. M. Castells highlights "the informational" formation in society development [7]. Every development mode is determined by the element that is fundamental to the development of economy and society. Having multiple set-ups, unevenness and economic differentiation in a regional context, Russia requires new theoretical and methodological decisions on identifying ways of industrialization today and solving the key problems of innovative economy development.

Diversified economic growth: the essence of regional economy diversification, the structure and the direction of economy diversification in Siberia. Reindustrialization is associated with the production transfer of to the rails of the latest technologies and technology related to the achievements of scientific and technological revolution. Due to the complexity of the political and economic situation for Russia in a "war of sanctions", the global processes taking place, the need for new methods and approaches is actualized in the regional control system allowing to identify and reach a new level of regional competitiveness.

Thus, in terms of reindustrialization, which should not be limited only to the predominance of large machinery in the region economic structure, it is necessary to allocate the industrial and technological innovation aimed at increasing the products' share of raw materials in-depth

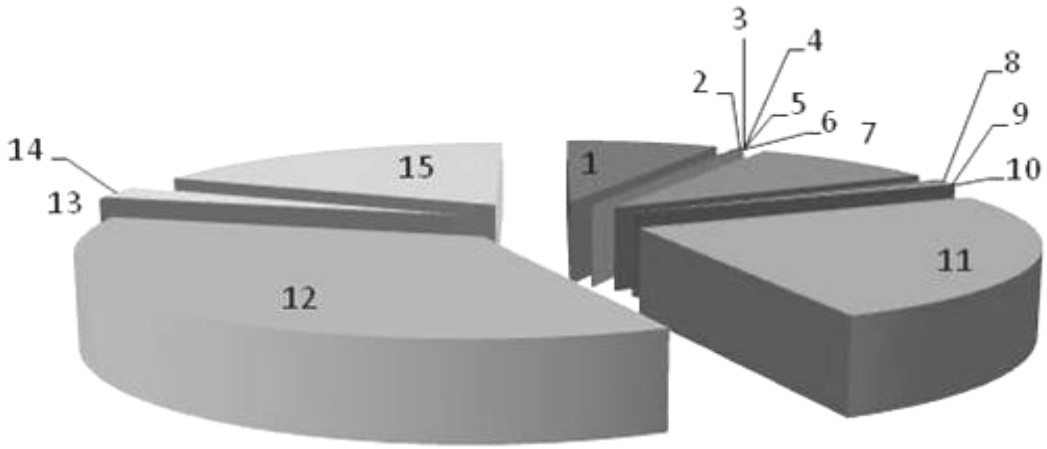
processing, the diversification of the regional economy, which is an important issue for the raw-material regions.

However, the industry structure in Siberia as a whole is not fundamentally different from the nationwide: the manufacturing sector accounts for a little less than 2/3 of output (in Siberia – 63.3 %, in Russia – 63.8 %), slightly more than 20 % – on share of mining (in Siberia – 21.4 %, in the Russian Federation – 22.6 %), the share of the production and distribution of electricity, gas and water accounts for about 14–15 % [9]. But if you consider these data at a lower integration level, the picture changes. Despite the similarity of the Siberian and Russian industrial structure, the significant differences in the structure in certain regions should be noted. The excess of the manufacturing industries share in total regional industrial production is characteristic of the four Russian Federation entities – Novosibirsk, Irkutsk, Omsk and Krasnoyarsk regions. A similar situation exists also in Altai region (the manufacturing industries share is almost 80 %). However, in the latter region the lion's share of production falls on the agricultural sector and food production, while the mentioned four areas just form "Siberian industrial zone". The share of almost all the regions leading in manufacturing industry in Siberia significantly fluctuated all the time, but the overall trend is clear – the undisputed leader was always Krasnoyarsk region. The share of the region rapidly grew in the second half of the 1990s. By 2000, this figure had increased by more than half compared with 1995, and almost twice compared with 1990. Later in the first half of 2000s there was a smooth decrease (almost to the level of 1995), and in the second half of the decade there were jumps from 20.6 to 260 %. The most important industry sector in Siberia has traditionally been MIC, whose enterprises manufactured important civil products in addition to military ones. In particular, almost all the high-tech engineering was concentrated in the military industry. The placement of such plants in the Urals was the result of Soviet industrial policy that considered the defense industry as the main flywheel of productive forces development. In addition, the defense industry distribution in the country was determined by the legacy of the war years (during the Great Patriotic War, the plants were transported from the European part behind the Urals), and by geopolitics (distributed MIC is more difficult to be captured hurriedly).

Today, the SFD does not take a leading position in the defense industry regional structure of the country. The main development trends are nationwide, in particular due to the subindustries consolidation process of Russian MIC by creating large integrated structures such as the state corporation "Russian Technologies" and many others. Regional structure of the defense industry in Siberia is heterogeneous and has a clear leader – Novosibirsk region which occupies one of the leading places among the federal subjects as a whole (in amount of defense enterprises). There are more than a third of the industrial enterprises here and less than half of MIC scientific organizations in Siberia.

In the sectoral structure of MIC in Siberia (in amount of companies) the ammunition and special chemicals industry dominates as well as conventional arms industry. It is worth noting that these subsectors both in the country and in Siberia are in a dire economic situation and their high role in the Siberian branch structure is in fact an additional source of problems for the regional "defense". Aeronautics is one of the leaders in the branch structure of MIC in Siberia. In Krasnoyarsk region there is JSC "Information Satellite Systems" named after M. F. Reshetnev", that is the basic scientific institution for the formation of the Russian GLONASS satellite system. There are dozens of the iconic companies of that kind in Siberia. This leads us to an important conclusion – the Siberian industry potential (including the defense one), created in Soviet times, is not lost, but every year the problem of personnel escalates at such plants, wear of equipment increases [8].

Mechanical engineering is one of the major industries in Siberian regions. By the end of the 80s it had accounted for more than 20 % of industrial production in the region. In 2008, the figure determined by the amount of economic activity was 9.2 %, while the share of the Siberian engineering in mechanical production of Russia stood at 7.4 %. The main types of machine industry in Siberia are electrical engineering, machine tool industry, aviation, mining and power engineering, mechanical engineering for the agribusiness complex, chemical and oil industry, instrument engineering. Regional economy diversification has different objectives as a tool for eliminating reproduction imbalances and redistributing resources and generally determines the economic restructuring direction. Diversification of the economy is a complex, ambiguous process. Different regions have their own diversification limits, the excess of which can lead to increased costs, reduced production efficiency. Diversification of production is the development of new activities, the simultaneous development of many product lines not related to each other, the expansion of manufactured products and services range. The regional economy diversification is the comprehensive industry development, the formation of multy-industrial crisis-resistant economic system in the region. In the raw-materials regions diversification determines the development of raw materials in-depth processing industries that have high added value. At the present stage of Russian industry development the question is raised on the diversification necessity on the basis of reindustrialization with the transition to technology and equipment of a higher order. The Russian economy is multiformal; the highest level of development is associated with the transition to the sixth technological set-up. In the economic literature diversification is generally considered as a basic economic development strategy of corporate structures. At the regional economy level the phenomenon of diversification strategy requires a detailed elaboration and selection of directions, along with the determination of diversification effects and results. Effecting positively on the development of the economy in general diversification processes of the regional economy contribute to the development of interregional and intraregional competition, they allow to saturate a market with goods, services, to increase the demand for goods and services among different social groups, etc.



The technological innovation cost within the manufacturing sector in Krasnoyarsk region in 2013, in mln rubles:
1 – food production; *2* – textile and clothing industry; *3* – leather, leather products and footwear production; *4* – wood processing and production; *5* – pulp and paper production, publishing and printing activity; *6* – coke and refined oils production; *7* – chemical production; *8* – manufacture of rubber and plastic products; *9* – manufacture of other non-metallic mineral products; *10* – metallurgical and metal wears production; *11* – machinery and equipment manufacture; *12* – manufacture of electrical and optical equipment; *13* – vehicles and equipment production; *14* – other industries not included in other categories of manufacturing industries; *15* – production and distribution of electricity, gas and water

The economy diversification can be implemented in the following directions [6]: new methods of work; new products and services development; adaptation of proven methods to new circumstances is also recognized as an effective meaningful way at the local innovative development, including unurbanized territories (the knowledge transfer from one region to another contributes to the innovative actions of that kind). We can identify the main trends and indicators in the regional management system defining its innovation, including the formation stages of knowledge-intensive, human resources and technological component of the regional strategic management system. The available experience analysis and evaluation of the innovative region development, both in domestic and foreign practice, have made it possible to identify individual systems used at the regional level to ensure implementation of the innovative development strategy of the region and the economic structure diversification. The result for the regional economy was the balance of the available infrastructure elements and innovative technologies, as well as a possible increase of regional product. Each region has a unique "local" potential for innovative development. Krasnoyarsk region is one of the most industrialized regions of Russia. Due to the natural resources many types of industrial activities are developed in the region, e. g. hydro power engineering, electro power engineering, non-ferrous metallurgy, mining, forest industry.

Our region heads the list in Russia in terms of gold mining; it mines 20 % of world nickel production. Key regional economy sectors play an important role not only on a state, but also on a global level. Mainly raw material orientation of the economy is the specific for Krasnoyarsk region, even taking into account other innovation indicators. Fundamentally new and innovative high-tech areas may be possible directions for the innovative advantages development of our region. Figure shows the technological innovation costs in the manufacturing sector in Krasnoyarsk region in 2013 [9].

This criterion measures the modernization initiatives presented by sectors of the regional economy. According to the annual results, there has been a significant costs increase of technological innovation in the electrical and optical equipment manufacturing. One of the regional companies invested 393 million rubles in the technical reequipment of the given industry in 2013. Previously more significant investments in the metallurgical industry and other industries were observed. JSC "ISS" implements projects on modernization of existing facilities within the Federal target programs. In 2013 the company invested 1.9 billion rubles. In 2014 it is planning to invest 2.6 billion rubles. JSC "ISS" increased the volume of output by 7 %; it comprised 31.3 billion rubles, in 2014 – 35.2 billion rubles. In December 2013 the spacecraft "Express-AM5" was successfully launched at the Baikonur Cosmodrome. It was created by JSC "ISS" for the national operator "Satellite Communication". That is the first heavy class machine among the newest telecommunication satellites, as well as the most powerful among the previously created ones on the "ISS" [10]. In the economy structure diversification the promotion and support of private entrepreneurial initiative has the exceptional role, and with it the development of innovative entrepreneurship. According to the data of Krasnoyarsk regional fund to support scientific and technical activities, 27 small innovative enterprises were established with the assistance of the fund for the period of 2009–2012. The main issue is the innovative entrepreneurship development adjusted for the needs of each region in Siberian Federal District. SFD falls behind

the rest of Russia in terms of social development in general. For the period of 2008–2012 there was rather a regression of poverty and unemployment in this area, it served as indicators of the poor state of society. Therefore, the main indicators of social and economic development of Siberia must comply with the average level in Russia by 2020. The following areas have leading position in GDP (53.1 %) in the Russian Federation: financial activity (transactions with real estate, hotels, restaurants, show business, and public administration). In the real economy sector (46.9 % of GDP) fuel and energy complex dominates. This accounts for about 40 % of value added gross of the whole industry (SFD has about 50 %). In the fuel and energy complex of the Russian Federation, the growth of oil production amounted to about 3 % in 2013 in comparison with 1990, and gas – just over 2 %. Power generation remained at the 1990 level, and production of all types of fuel (gasoline, diesel and heating oil) decreased, as well as coal mining (domestic coal consumption falls).

The economic growth quality indicator is high-performance workplaces. In accordance with the decrees of the President of the Russian Federation, the country is to have 25 millions of workplaces by 2018. In connection with the recognition of the special role of the regional economy modernization and the implementation of prioritized government decisions, it is necessary not only to adhere to the development goals of Siberia in order to ensure sustainable life quality improvement through a balanced social and economic system of innovative type in accordance with the development strategy of Siberia until 2020. The priorities formation of the industrial sector in the regions is an objective necessity, and with it the identification of the components and factors of regional economy innovation benefits including the new high-tech areas. For a number of existing studies and ratings innovative development of regions including the Association of Innovative Regions of Russia and the HSE, some regions in SFD, Krasnoyarsk region lead in terms of research and development, the existing human potential. The economy diversification of Siberia built in the general context of structural reform, industrial development of the national economy, is designed to overcome the current orientation of the simplified technological diagram, the existing production facilities loses, to upgrade technological basis and reorient the economy of the regions different in their benefits to the prioritized high-tech development industries forming the economy competitiveness of the region and the country [11; 12].

Conclusion. It is necessary to determine the priority areas of technological development and reequipment in Siberian regions including Krasnoyarsk region taking into account its specific orientation as a raw material region, and with it the search for new technological solutions based on the latest technological set-up; increasing the share of high added value and knowledge-intensive industries; forming a search and selection system of breakthrough technology solutions; strengthening and formation of new relationships between the elements of the innovation infrastructure; stimulating demand and market development of innovative products in the region [13; 14]. The priority of long-term development objectives of Siberia involves the interaction of regional public authorities, local government and business in solving prioritized long-term objectives set out in the economic development strategy of Siberia as part of the following processes: provision of large-scale technological modernization; radical modernization of vocational education to meet the requirements of innovative development of modern society; provision of proactive development of transport, energy, construction and social infrastructure; implementation of investment projects for extracting and primary processing natural resources using the tools of public and private partnerships; sector development of natural raw materials in-depth processing; the formation of a unified system of industry, university and academic research centers in Siberia in order to create the infrastructure of scientific and technological centers; the regional technological development, giving priority to ecologically clean production technologies; the formation of effective mechanisms for the innovative technologies promotion in all sectors of the region economy. The main activities of the administration allowing us to solve the problem of regional innovative development are in this regard: the development and implementation of special target programs at the regional and local levels; provision with direct subsidies and target allocation by regional authorities to innovators; establishment of local tax exemptions for entities engaged in innovation, and interest rate subsidies on loans granted to them; the formation of science parks and regional high-technology centers; the creation of small business incubators; support for business networks and innovation clusters development; implementation of training programs and consulting innovative managers; distribution of “success stories” during the innovation implementation; the formation of regional integrated databases on the proposal and a request for innovation (R & D results, innovative projects, new products and services); creation of a monitoring system to promote and implement innovative projects in the region; reduction of administrative barriers for the innovative enterprises and projects organization; attracting venture capital in the region and support of regional venture capital funds. Priorities in a number of sectors are defined by public policy and prospects of development of the military-industrial complex (MIC) for the economy of Krasnoyarsk region. The priority objective is to make 2020 “scientific, technical, industrial and technological potential of the defense industry into the state-sponsored innovative resource efficient by accelerated technological modernization, implementation of its competitive advantages, and the development of human resources of the military-industrial complex”. Enabling factors of innovative development in other sectors of the economy of Siberia are necessary, and with it the formation of the innovative development strategy of Siberia and diversified areas of economic growth, taking into account certain “key competencies” of the industry in each region [15].

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