

Developing a Strategic Management System of Russia's Economy

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Abstract—Strategic management can and must be the basis for integration of political, organizational, socioeconomic, ecological, legislative, moral, information and other processes aimed at social security provision. This integration must have a common concept and objectives.

Keywords—*model; strategic management cognitive technologies; supercomputer*

I. THE R&D SYSTEM OF RUSSIA, THE PROBLEM OF STRATEGIC MANAGEMENT IN RUSSIA AND MYTHS OF THE MARKET ECONOMY

The problems of strategic management of the economy, theory of industrial policy are covered in the fundamental research studies by the leading world and domestic universities (Oxford, Harvard, Cambridge, Princeton, Higher School of Economics, Lomonosov Moscow State University, Saint-Petersburg State University, Saint-Petersburg State University of Economics) and such well-known scientists as L. Abalkin, A. Akaev, S. Glaziev, L. Blyakhman, R. Grinberg, V. Mau, et al.). However, the actual economic, budget and innovation system existing in Russia today is still based on the combination of market fundamentalism and rigid administrative power influence on business.

It prevents development of science and modernization of industry in the country given the strict budget limitations and economic sanctions introduced against Russia's economy. Feudalism of the political elite discourages science from development due to the difference of interests in tackling the dilemma: export of capital or long-term investment in industry.

Strategic planning is a crucial part of the strategic management process of complex socio-economic systems (SES). Their appearance and evolution in the theoretical and practical form date back to the 1950s.

Analysis of statistics and documents on the country's development (the Strategy of Scientific and Technological Development of the RF for a Long-Term Period, the Strategy of the National Technological Initiative, the Strategy of Innovation Development of the RF for the period until 2020, the Strategy of Socio-Economic Development of Russia for the period until 2030) has shown that today the concept of the R&D system does not contain any notions about management

of the R&D system itself. There is no model (systems) of its strategic planning.

Analysis of the published documents called "Regional Strategies" has shown that they often represent a kind of development doctrines, which work with some images of the future and, at the same time, with various contexts. The texts of the above documents contain terms confused in their meaning, such as "strategy", "projection", "strategic plan", "policy", etc.

Analysis of development concepts and strategies of the RF, sectoral and regional concepts and strategies proves that they are largely inconsistent with the decisions of the top political leaders of the country responsible for strategic planning and budgeting practice of the socio-economic development. Many famous economists state "the myths of the market economy" (L.S. Blyakhman, S.Y. Glaziev, S.V. Valtsev), so the model of resource consumption (natural, technical, intellectual ones) should be changed. It is necessary to change subjects and objects of management, as well as the planning principles and methods of the country's strategic development [1]–[3]. Today, to apply market regulation of the economy in monetary and budgetary policies is believed to be absurd.

The following facts and arguments, which justify the need for changing the methods of strategic planning in Russia [1]: significance of scientific communications and organization of interaction between scientific organizations, increase of information support of the Russian Federation State Program called "Development of Science and Technology" for the years 2013-2020 and adaptation of management methods thereof.

The main strategic challenge for science is sustainable development of the civilization, which implies sufficient energy resources (fresh water, minerals, wood, planted areas, etc.). However, our technological paradigm and globalization process involves more and more people in consumption, depleting the resources of the planet and bringing about its inevitable resource collapse. This is a trivial statement, but such a development of the technosphere has brought the mankind to rapidly growing environment pollution and brought us to the line after which the impact of the technosphere on nature will become uncontrollable and the processes affecting it will be irreversible. This causes threat to the existence of the entire mankind. Today leadership in

resource distribution is achieved not in war, but by technological enslaving. Russia does not need to copy the experience of other countries for a scientific breakthrough but should develop strong points of the domestic science. Russia should use its advantages in the fundamental science and transfer them to the level of practical applications.

Firstly, it is the problem of demographics on the planet, energy stability and pandemic.

Secondly, it is a delicate transformation of the science organization (meaning change of approaches to science organization). The latter comment is essential, since it is important to separate applied science, capable of generating or ensuring multiplier effects in many sectors of the economy and social sphere, and fundamental science.

Thirdly, according to Russian scientists' approach, it is convergence of nature-like technologies.

Fourthly, it is industrial (technological) safety.

Fifthly and finally, it is rapid application of approaches in cognitive science, which "unifying the methods of natural and humanitarian sciences is strategically aimed at conversion of humanitarian knowledge into humanitarian technologies". It must become the basis for a planning strategy of science, which will eventually ensure motivation for innovations, external order from the state [3].

The main stages of work on methodological support of the strategic planning system for the macro-regional level:

1. Creation of the concept and methodology for strategic planning and management, including models of the object and the managing structure, methods of general diagnostics of the strategic management system [4].

2. Formalization of the socio-economic environment in concordance with the concept and methodology, including formation of decision-making process models and a threat matrix of problem situations, methods for selecting top priority directions and strategy forming, as well as selection of a strategy for the next period in the strategic development plan.

3. Development of algorithms and expert system programs as a foundation of the strategic planning and management technology based on formation of an experimental inter-organizational network and given the developed proposals about the methods for evaluating the efficiency of interaction between decision-makers.

4. Installation of special designed software on the servers of a specially set up strategic management center, which has widely recognized achievements in the field of artificial intelligence, parallel computing, technologies for constructing regional telecommunication networks, distributed intelligent systems. Implementation of projects for international and cross-cultural communication of children based on up-to-date information technology. For example, a partner of St.

Petersburg State University of Economics – Institute of Program Systems named after A.K. Ailamazyan, Russian Academy of Sciences.

II. FACTORS AND SPECIFICS IN THE STRATEGIC PLANNING SYSTEM

The following ones have principle significance in this context:

Creation of conditions for efficient exchange of information resources between scientific institutions of the country, universities and objects of industrial production, companies (corporations), financial institutions, government bodies and society.

Strategic planning for training cadres for industrial enterprises, educational programs, formats and technologies for reclaiming Arctic and Far East. Economic development of these regions.

Transition from narrowly-specialized science and sectoral technologies to integrated inter-disciplinary science and nature-like technologies based on cognitive approach and strategic management of science and technology.

Application of cognitive technologies in planning as a big breakthrough in management, since application of managerial (administrative, indicative) approach developed at the time of the second paradigm of the economic cycle in the USA only destroys our economy.

Recognition of the fact that production is the basis for people' life, their habitat. It is necessary to develop the enterprise's infrastructure, establish a continuous system of cadre retraining, change the system of management rather than just modernize its organizational, economic, technological subsystems with information technology [5];

Key performance indicators of personnel management at high-tech enterprises. Efficiency of investment into the continuous education system of personnel at hi-tech enterprises. Integration mechanisms of the educational system and hi-tech industry. The role and form of educational centers in operations of industrial clusters.

The need for change of strategic planning methods in Russia is caused by the following conditions:

The state policy in the field of science, technology and education is multidirectional (inconsistency of the proclaimed objectives, target programs, lack of control over their achievement and execution). The system of science and technology development in the RF has no model for managing the system itself. I.e. a variety of planned objectives, which are inconsistent with the strategic management goals, and unbalanced interests of participants are direct evidence of the fact that today's methodology of spontaneously started federal target programs (FTP) has failed, while destruction of sectoral research institutes and RAS institutes has added to this failure. Fragmented usage of western technologies without system-based strategical management of the Program creates conditions for bringing capital away from this sphere (both in the context of economic mechanisms (dividends, offshores)

and in the form of intellectual capital). Deindustrialization of the country and public policy in the field of hydrocarbons contribute to this too. Cluster approach to industrial policy formation, to a certain extent, results in limited information exchange in relation to the development strategy and our country has already been through this development path. The knowledge-driven economy and modern industrial policy are “organically related” to the processes of cadre training and education. Permanent academic reforms contribute to lower quality of education and, consequently, disrupt the process of cadre training.

III. CONCLUSION

The system of strategic planning represents a set of coordinated and unified by a common idea and goals political, organizational socio-economic, ecological, legal, moral, information and other processes, aimed at ensuring national security and creation of new growth areas for industry.

Strategic management as a basis for increasing efficiency and creating demand for innovations with better labor productivity as the main efficiency criterion in adaptation of development plans. Herewith, conditions for labor productivity growth include convergence of nature-like

technologies and industrial (technological) safety into production, incentive taxation of efficient enterprises as a stimulus for development. Framing of a core of the new technological paradigm and achievement of a synergy effect in forming new production clusters is only possible in terms of the system of strategic planning to be created.

REFERENCES

- [1] Balatsky E.V. Interconnection of Economy and Management: Overcoming a Cognitive Gap. Internet journal "Capital of the Country" 19.11.2012.
- [2] Blyakhman L.S. Three Colors of Economic Time: Achievements and Problems of the Russian Economy. St. Petersburg. IPC SPbSUTD, 2011. 247 p.
- [3] Valtsev S.V. Market Economy: Myths and Reality. Problems of Contemporary Science and Education. 2012. No. 3.
- [4] Kukor B.L. Theoretical Fundamentals of Creative Innovation Resources Adaptive Management of Macro- and Meso-Economic Systems. In the bulletin “Problems of Creative Innovation Economy Development”. 2009, pp. 616–630.
- [5] Brusakova I.A., Kosuhina M.A. The fuzzy logic method for innovation performance measurement Soft Computing and Measurements (SCM), 2015 XVIII International Conference on, 19-21 May 2015, St. Petersburg, Russia, pp. 251–254. IEEE DOI: 10.1109/SCM.2015.7190487.