Concentration Time

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The issues of Russia's sovereignty in various spheres of political and economic life are currently the most pressing. We are moving (finally!!!) from the former rainbow hopes for the accelerated development of the country in the system of global ties and relations imposed on us from the outside to the search for a path based on our historical experience, taking into account the peculiarities of our vast multinational country.

From this point of view, the sanctions restrictions and the foreign policy situation in which Russia and all of us as its citizens find ourselves are not, perhaps, the root cause of the actualization of sovereignty issues. Rather, on the contrary, they can be defined as an inevitable and, in many respects, logical result of our too long neglect of the need to form our own model of socio-economic development (in its broadest sense).

This neglect, in particular, manifested itself in the fact that of all the intellectual "wealth" that was created by domestic and world science, only that which was "deemed necessary" by those who did not care about the development of our Fatherland was actively used. This applies to the accelerated integration into global economic processes and relations on the most unfavorable conditions for us, and neglect of the development of domestic scientific and technical potential, and orientation towards formal approaches within the framework of the Bologna process in education, etc., etc. In general – an emphasis on the unconditional dominance of market forces in all spheres of economic and social life.

In this regard, it is interesting to refer to the understanding of the issues of S&T capacity development in the context of the interaction between economy and space proposed by Danish researchers Bengtom-Oke Lundvall and Peter Maskell:

"…It is important to highlight the factors and circumstances that distinguish one nation from another…We proceed from the leading role of the National Innovation System (NIS) as the basis for the integration of structural and institutional factors in economic development. …We believe that it is necessary to analyze and compare different NIS from the perspective of the effectiveness of both knowledge generation and learning processes aimed at studying and identifying the determining role of intellectual, social and natural capitals…The study and elaboration of proposals for the development of innovation processes within the NIS represents, in a certain sense, a synthesis

of purely productive and purely entrepreneurial approaches…. Its peculiarity is that it is based on the consideration of the co-evolution of productive structural and institutional characteristics … Attempts to reduce the drivers of innovation to either demand-only or supply-only factors have been unsuccessful … The results of innovation depend entirely on long-term interactions and the closeness of ties with external agents … Communication and interaction between different agents initially arise on the basis of non-market interactions …Purely market interactions are unable to provide the necessary quality of information flows between consumers and producers… …Within different national contexts, different opportunities for organizing markets emerge…"[1].

This point of view is largely shared not only by the author of these lines. Among the authors and initiators of the cited book are many well-known economists of our time: Paul Krugman, Michael Porter, Jeffrey Sachs and others.

Appeal to the understanding of the specifics of the domestic economy is extremely relevant in the light of the work on the formation of approaches to achieving technological sovereignty[2]. Its main steps have been defined so far[3]:

"…it is necessary to establish internal cooperation chains and international technological platforms, to deploy serial production of own equipment and components, to target geological exploration for rare earth materials and other raw materials for the new economy…".

…it is necessary to create all conditions for small and medium-sized companies to develop dynamically, and the quality of this growth to increase due to high-tech areas of production business…".

The updated "Strategy for Scientific and Technological Development of the Russian Federation" was approved and came into force, which is designed to ensure the integration of structural and institutional factors in the development of the domestic econom[4]. In particular, in the stating part of this document

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[1] *Lundvall B.-A., Maskell P.* Nation States and Economic Development: From National Systems of Production to National Systems of Knowledge Creation and Learning. Chapter 18–353–372 pp. // The Oxford Handbook of Economic Geography. Edited by Gordon L. Clark, Maryann P. Felman and Meric S. Gertler. New York: Oxford University Press. 2003. 742 p.

[2] *Yermakova S., Grinkevich D.* The government proposed 12 national projects of technological sovereignty // Vedomosti. 2024. March 19: https://www.vedomosti.ru/economics/articles/2024/03/19/1026479-v-pravitelstve-predlozhili-12-natsproektov-tehnologicheskogo-suvereniteta?utm_campaign=newspaper_19_3_2024&utm_medium=email&utm_source=vedomosti

[3] President's Address to the Federal Assembly. February 29, 2024. URL: http://www.kremlin.ru/events/president/transcripts/messages/73585

[4] Presidential Decree No. 145 of February 28, 2024 "On the Strategy of Scientific and Technological Development of the Russian Federation".

it is noted that "…from 2022 to the present [the country is implementing] the stage of mobilization development of the scientific and technological sphere in the conditions of sanctions pressure, accompanied by the consolidation of society and economic entities to solve the problems of scientific and technological development".

When defining the problems (challenges) facing the country, the authors of the Strategy fix that "…the following negative trends persist:

(a) Inconsistency of S&T development priorities and instruments of its support at the national, regional, sectoral and corporate levels;

b) exhaustion of Russia's economic growth opportunities based on extensive exploitation of raw material resources against the background of formation of data economy, accelerated development and implementation of artificial intelligence technologies in all sectors of the economy…".

The purpose of the thematic selection of this issue of "ECO" is precisely to show those problem areas that, in our opinion, have not been adequately reflected either in the Strategy itself or in the development of priority national projects for the formation of technological sovereignty.

We proceed from the fact that the resource sector (and especially the oil and gas complex as its leading and determining part) is by no means a curse or a sign of backwardness, but a historical, cultural and scientific-technological asset of Russia. And we have long needed to move away from an obviously outdated and unproductive understanding of the role and place of this sector in the modern economy.

In recent years, the main driver of the resource sector development is increasingly becoming a high-tech knowledge-intensive service segment covering a wide range of areas – from the study and prospecting of minerals to their subsequent processing and use of innovations created within its framework, including for other sectors of the national economy (papers by V.A. Kryukov and A.N. Tokarev; A.K. Krivorotov; V.V. Shmat).

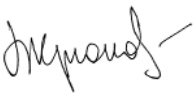
Effective development and involvement of minerals into economic turnover presuppose not only the use of the most modern technical means and knowledge in general, but also the previously mentioned harmony of structural and institutional components. The latter is represented by the system of state regulation and management of environmental and subsoil use processes (interview of A.A. Vasilyev, direct speech of the participants of the round table "ECO").

The interaction of structural and institutional components in the resource sector has a strong national specificity, determined both by the types of natural resources available and the stages of their development and exploitation,

as well as by climatic and spatial differences. As the experience of previous years shows, the transformation of the Russian resource sector and "classical market interactions" within it lead to an exclusive focus on imports of equipment and technologies. The state policy in the field of subsoil management can (and is called upon to) counteract this and realize the potential of the enormous demand for new knowledge and technologies, which are necessary for the knowledge-intensive service segment[5].

The most important component of the latter is the issues of scientific and technological policy. We need not only national projects focused on the production of lines of new domestic equipment, materials, software products, etc., but also an effective system of interaction between the state and business at all stages of the use of national wealth – natural resources.

What we are currently observing in this area is still very preliminary in many respects. The mobilization stage of scientific and technological development implies an early transition to real and effective practices of interaction between all participants in the implementation of projects in the resource sector of the economy – both oil and gas projects and those related to the intensive study, development and use of the potential of our territory and our subsoil.

Editor-in-Chief of the journal,
academician of the RAS  V. A. Kryukov

[5] *Kryukov, V.A.* On the study and development of strategic minerals in the framework of socio-economically oriented full-cycle projects // Bulletin of the Russian Academy of Sciences. 2023. T. 93, № 7. P. 605–613.