

POINTS OF SUPPORT FOR INTELLIGENT SYSTEMS

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ABSTRACT

Theoretically justified, but remaining less demanded, innovative mechanisms seek and find reasons to assert themselves. The article gives a special place to the problems of development of Russian intelligent transport systems, especially

those that allow to create new high-tech products. This topic has gained priority in the light of importance of restructuring public sector of economy, of the need to update legislation to accelerate the development of intelligence-bearing means of organization and maintenance of transportation process.

Keywords: railway, legislation, economics, intelligent transport system, financial mechanisms, interaction of government and business, government guarantees, venture projects.

Background. The purpose of my article is not to highlight achievements and identify disadvantages of relevant authorities responsible for development of Russian intellectual transport system (hereinafter – ITS). Because I believe that the time will come when we will only be proud of our ITS and its shortcomings will fade to future achievements. The main thing is, at what point and what generation will feel real fruits of science minds, and whether «bureaucratic class» will finally show curiosity topics worthy. Because it affects the development of the economy and as a consequence has an impact on socio-economic and political stability of existing social connections and relations.

I share in this respect weighted optimism about the forms of scientific participation in the programs for sustainable development of Russian territories, which academician V. V. Okrepilov shows in the journal article [1]. The ideology of these programs involves system integration of intellectual forces in economy, technical and technological innovation in the world of transport, while leaving under constant sight social interests of the regions, needs of citizens. Of course, for any intelligent control system its consolidating meaning is primordial and necessary, but nobody until now has managed to bring to this level quality of model under construction.

Objective. The objective of the author is to discuss some aspects in relation to intelligent systems formation in Russia.

Methods. The author uses general scientific methods, comparative analysis, evaluation approach, economic assessment.

Results. In October 2015 the 7th Russian International Congress on ITS took place. Its purpose was precisely formation of a reputable professional platform to elaborate theoretical and methodological problems, to discuss issues of innovative development of the transport complex, orientation of intelligent systems to provide reliability and safety of transport which are of importance today, strengthening partnership of public authorities, scientific and business communities in the field of intellectualization of research and design activities.

But the key element, of course, is that the state faces a task of determining a rational policy on domestic and foreign markets. In these circumstances, there is a need to establish a mutually beneficial partnership between government and business, and then such an approach is supposed to give a new impetus to development of ITS. However, a question arises, whether it is possible to carry out purposes useful for the country without proper legal framework?

It is not a coincidence that such a question is posed. It is ripe to become not only a discussion. Business community, developers of intelligent systems, creators of software products are concerned about it. It is significant in this case that the interest in the legislative consolidation of ongoing processes is shown not only

by representatives of industry centers, but above all by companies and specialized structures of regions, where a firm belief has emerged in this regard. Supporters of a new law are calling for their partners to consolidate the position of intelligent transport systems' market participants in order to reach common possession of effective legal instruments and the very possibility to develop forcefully innovative area of scientific knowledge.

In academic community of transport universities discussions often arise in relation to justification of proposals for creation with participation of the State Duma Committee on Transport of a draft law, which determines state policy in relation to intelligent transport systems, which is the essential side of future changes in the management of basic industry to the economy of the country. And it is more and more obvious (and mentioned October Congress in this sense, is typical) that today there is a close relationship of theoretical unpreparedness of conceptual apparatus, without which it is extremely complicated to formulate articles of a desired law, and legal interpretation (whose objectives are difficult to be formulated) of positions that relate to the problems of budget financing of research and design work, investment attractiveness of projected ITS and infrastructural transformations, which are being prepared in parallel.

For seven years, participants of Moscow and Russian Congress have been reporting on importance of the adoption of a federal law on ITS. But there is no effect, law still does not exist. As a consequence, investment component in ITS projects is minimal.

This happens precisely because of the fact that «bureaucratic class», responsible for development of this sphere, apparently think in line with not proven ideas of Adam Smith to the effect that the market system is capable of self-regulation, because it has a personal interest that is associated with the pursuit of profit.

However, the market economy is not effective without legislative regulation. And it is natural to appeal to historical roots. Widely unfolded in the 1860 railway construction – a real «rail fever» – had given rise to other major industries. The government of the Russian Empire understood that to raise the level of economic development it was necessary to strengthen railway construction, but was not able to build railways at state expense, so it tried to attract private capital (Russian and foreign), ensuring builders profit on invested capital. Whence it follows that development and strengthening of the Russian Empire's economy was going by means of attracting private capital (investment) in production [2].

Today, the Russian state, as it did in earlier historical times, dominates in formation of economic relations. By and large this is a normal continuation of natural

conditions in the transition period, when the situation from a condition supposedly shifts to another one, and in fact, the power, including economic, remains in the hands of the state. And as long as our government does not break out of captivity of economic liberalism concept, the country will long remain in "depressive stabilization". Because in spite of objective economic processes, the policy of weakening influence of state economy regulators and of vertical administrative chain appears clearly, stimulation of investment is stalled, liberalization of internal market is focused on privatization of state property.

In addition, it should be noted that while exchanges, banks, insurance companies, investment funds weakly interact with each other, there is no uniform regulation and protectionist policies of the state, based on a mutually beneficial economic integration. It, in turn, should be formed on the principles of voluntariness, mutual assistance, legal support and assurance of democracy, common goals and motivation. And, of course, responsibility for their commitments.

One of the most effective topics of interaction between state and business in the regulatory and legal regulation should be attributed to foreign economic relations, rational use of financial resources, material-technical support of production and products distribution, involvement of foreign investment in the economy. Undoubtedly, the more effective and deeper are breakthroughs in science and technology and information security, more hopes society and business put directly on resources and institutions of the state [3].

Based on historical experience, as well as on the practice of developed countries, we should be aware that the implementation of intelligent transport system is ineffective without investments, without laws inherent in investment requiring highly targeted research, actualization and formalization, especially in those sectors where ITS is able to become a real «engine» of the economy.

This requires the establishment of clear «rules of the game», i.e. aligned competent legislative regulation of ITS, and a fully fledged system of interaction between government and business. In most countries, such interaction is provided by state bodies of federal importance, together with specialized agencies.

The innovative development of the Russian economy is doomed to follow the path of scientific and technological progress, one of which sectors are ITS, ensuring constant movement forward by scientific study in strategically important directions. It involves not only the growth of scientific activity, but also improvement of administrative and executive institutions (tax system, banking, financial markets, insurance, etc.).

In our opinion, the government should in order to ensure successful development of ITS:

- Reinforce investment in ITS with government guarantees to venture capital projects;
- Guarantee unsecured loans partially or completely;
- Allow banks to include the cost of venture projects into the first risk group.

Formation of venture capital with direct involvement of the state is a prerequisite for business outsourcing,

as well as an opportunity to reduce investors' risks. But for more effective investments in ITS projects the state needs to create and maintain stimulus measures, as it is accepted in the world community. Such stimulation, in particular, includes tax benefits or tax credits. Provision of them would be useful even if the companies are in the process of restructuring or at the initial stages of their activities, because they cannot at this time usually get a profit.

As a rule, in reality, investors are not willing to invest in unreformed organization due to high risks. This is affected by:

- Lack of protection of property rights;
- A significant risk of non-repayment of funds due to inefficient management and supervision of law enforcement;
- Opacity of financial condition of organizations;
- Imperfection of accounting, which, in turn, entails a lack of reliable information on financial and economic condition of the organization, not only for owners, shareholders, managers, potential investors and creditors but also for state and fiscal services;
- Underdevelopment of guaranteeing mechanisms for fulfillment of contractual obligations.

Conclusion. The conclusion is logical: as long as investors do not receive their necessary safeguards and intellectual property rights, they will assess their risks as very high. The situation is aggravated by the fact that while the Russian legislation does not regulate relations in the field of competition, there are no mechanisms of restraint of unfair competition in science and technology. That is where intelligent systems or their operative embodiments are in practice.

Many countries follow the path of cooperation and partnership between government and business, eliminating obstacles to innovation, creating incentives for researchers in the field of ITS, activating the flow of investment at an early stage and creating conditions for venture capital financing. Russia does not hold up to the optimal level today, lags behind in the development of not only legal component but also organizational and economic components. Theoretically, financial mechanisms of interaction and cooperation between government and business, particularly in the sphere of innovation, of course, are offered, but there is a considerable need for the development of their implementation into practices.

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