



## **Innovation Policy in the Context of Budget Mechanism Reformation: Goals Outline and the Tools Required for Successful Implementation**

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### **ABSTRACT**

The article covers the methodological aspects of the system program tool for innovative policy that would facilitate the implementation of national top-priority projects under the conditions of budget mechanism reformation. The practice of innovative development regional programming uses patterns, which have proven to have low efficiency and produce fragmentation rather than achieving the expected results due to the types of design implemented. Relying on the synthesis of theoretical background, empirical assessments and practical experience in applying management by objective for the region budget formation and use, the authors show how a tooling of the system program mechanism can be used to create a basis for reformatting the existing innovative development model into a desired condition, which is well balanced in respect of goals, needs and the possibilities of achieving consensus among the region entities.

**Keywords:** Regional Complex Models, Innovation Policy, Fragmentarity, Budget Process Reforming

**JEL Classifications:** G18, H52, O38

### **1. INTRODUCTION**

Constructive changes in the socioeconomic model of regional complexes include, but are not limited to, the targeted reformatting of human capital, frame terms and conditions for the implementation of investment and innovation projects and the organizational economic behavior of economic agents on the basis of a social technology cluster (Order of the RF Government No. 1101-r, 2011; Order of the RF Government No. 2593-r, 2013; Complex Recommendations, 2010; Letter of the RF Finance Ministry No. 8.6.12/44036, 2013; Letter of the RF Finance Ministry No. 02-16-03/22554, 2013).

All of the measures are represented within relevant programs and plans aimed at ensuring coordinated territorial planning and infrastructure links allocation. The overall prospects of the program, with regards to the implementation of projects for the

principal reconstruction of the existing production and technology potential in the region, must rely on the given resource bases for such reforms, namely; labor, technology and innovation resources.

Reformatting the conditions for the implementation of regional development innovation programs can be performed in line with measures aimed at budget mechanism reformation on the basis of a clear division of powers and responsibility for every level of national public authorities (federal, regional and local). Methodologically, the rate of differentiation in the distribution of budget and off-budget funds for innovation policy implementation is determined by reference to additional costs for compensation in relation to the tightening of daily living activities, the geopolitical significance of the region and priorities in the establishment of strategic innovation centers (Aleksandrova and Salmin, 2008; Zhiharev, 2010; Pilipenko, 2008). The abovementioned factors, subject to purposeful constructive actions, shall in aggregate

ensure the required integrity, which is able to further expand the self-reproduction and sustainable development of the entire territorial economic unit.

However, evaluation of the institutional, regulatory, methodical and organizational mechanisms of the innovation policy at national and regional levels shows a lack of integrated concepts, methods and tools for policy implementation. The result is disintegration and a failure to combine the relevant blocks which is further compounded by the non-systemic nature of the innovation policy itself.

It should be mentioned that due to a shift in focuses from globalization to “glocalization” (regionalization), the tasks related to working out the methodical and organizational tooling, that would adequately consider the evident specific features of the territories and concurrently provide for their uniform development, have become a top priority for government authorities in most EU countries as well (Bachler, 2005; Landgrebe, 2011; Hekkert and Negro, 2009; Kiselev et al., 2009).

## 2. LITERATURE REVIEW

The currently applied methodology of innovation modelling and management in economic systems is based on the theory of innovations contributed extensively by such Russian and foreign researchers as Schumpeter, Lundvall, Freeman, Nelson, Perala and Pavitta, Metcalfe, Ivanova, Ivanov, Egorov, Bbeketov, Fridlianov, Mindeli, Golichenko. Results of studies into the tool-related aspects of innovation policy are addressed in the works of Algina and Bodnar (2011) Ivanov (2011), Beliaev and Tsygankov (2004), Buchler (2005), Zhiharev, (2010); Ksenofontov, (2011).

Analysis of theoretical publications into the problem as well as a detailed study of the empirical estimators of the experiences in innovation policy methods and tools implementation, within the frame of currently conducted reforms within the budget sphere, proves that the program support system, for innovation policy processes and stages (formation, implementation, management and control) as a component of Russian national priority projects, remains underdeveloped. This explains the urgency of the problem (Rating, 2013; Zagratsky, 2011).

## 3. METHODOLOGY

The set tasks were solved using a major provision of the dialectic approach, system and structure analysis; general scientific techniques (induction and deduction); abstract logical analysis and synthesis; cause-consequence and factor analysis; economic and mathematical methods such as hypothesis statistical testing, expert evaluation, integral estimation, and hierarchy analysis techniques.

In pursuance of the transition to program goal structure for budgets and integrated target program systems, financial support for the innovation objects is provided within the frame of federal and

regional programs out of budgetary funds at every level as well as off-budget sources, and shall be target-focused (Order of the RF Government No. 1101-r, 2011; Russian Cluster Observatory, n.d.; Federal target programs in Russia, n.d.).

While in theory this type of target focused finance should achieve the desired results, in terms of practice however, it seems to have been impossible to establish a “project passage” for the planning and optimal intended expenditure of all sources involved in the innovation policy implementation. Neither was it possible to integrate regional programs into the nation-wide system of programs due to the incommensurability of their constituent components, a lack of clear guidance for choosing methods of alternative regulatory environment build-up and a failure to provide modes and procedures for program implementation, analysis and forecast techniques and the estimation of region performances and innovation potential (Order of the RF Government No. 2593-r, 2013). Applying to the whole economy, the failure resulted in a disintegration of the budget reform mechanisms and current model of integral optimization on a territorial and industrial scale, since the “national innovation system,” “regional innovation system” and target programs are not subjects of the management model.

In circumstances such as these many regions adopt regulatory acts of their own in order to try and support innovative activities. The territorial aspect was duly considered, and the Ministry for Economic Development identified 25 territorial innovation clusters as “points of growth.” Such a financial institutional mechanism a priori directed innovative development into the area of outcome localization and fragmentarity.

The bulk of budget funds were distributed among scientific centers located in urban agglomerations such as Novosibirsk, Tomsk and Dubna. Criterion features included the availability of well-developed innovation infrastructure and high scientific research and technology potential. However, in the end, the measures still worsened the differentiation in the social and economic development of the regions and failed to improve their earning power and the consistency of innovation development (Federal target programs in Russia, n.d; Miterev, 2009).

Thus, within the frame of the budget policy measures related to the implementation of the program targeted planning of government expenditures, segments of the national innovation system, in particular the territorial sector, happened to be restricted by differently directed management solutions; where a subject of industry management had to be included into the financing in accordance with the program targeted planning of budgetary expenses, while an object of a territorial entity (cluster) had to fall within the industry program system. However, there is virtually no mechanism of coordination between the development performances of an innovation object, which actually constitutes a specific economic unit, and the criteria of interregional and intraregional product reproduction, as well as indices of the region integration into the national economy (Sozaeva, 2012). Hence, there is fragmentation and locality in the estimation of national innovation complex business activity.

One of the aspects of the budget reform is the transformation of relations concerning state (municipal) service rendering and work performance. This explains why the Russian government decided to improve performance budgeting models for funding state (municipal) organizations.

In accordance with the adopted planning procedure, a target indicator in an innovation project’s funding shall be an innovation product, i.e., a service (educational, for instance) or work (know how) performed. Recipients of the financial resources are therefore producers of the innovation services (works), such as educational, academic and research institutions funded by federal and regional budgets, non-profit consulting organizations etc.

The essence of the model for innovative activity provision with resources is that every member of the covered network is assigned a state (municipal) task consisting of certain services (works) to be performed, for a period of 1-3 years, backed with adequate funding. The amount of funding can be changed according to the results of quality control for a given service (work) which is performed by state (municipal) organizations.

In terms of the budget policy reform, we endeavored to follow the logic in building up relations and dependencies from government programs up to certain facilities and services and work performed by them, in order to test the hypothesis proposed by the reform ideologists concerning achievement for innovation complex sustainable development at macro and regional levels (Figure 1).

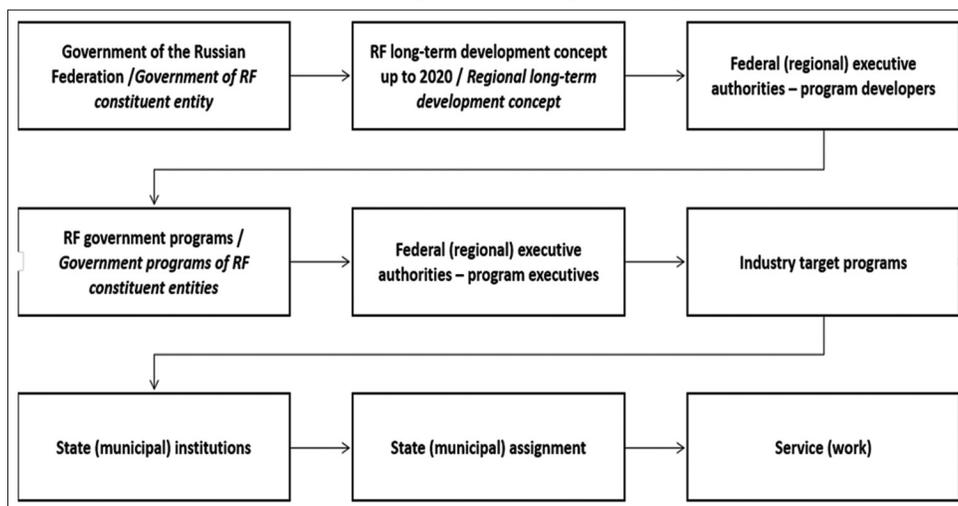
In a simplified variant of the “connection” diagram (Figure 1) a discrepancy appeared in the grey block at both the planning and budgeting stages. Through the course of the innovation system’s further promotion the inconsistency in the regulation mechanism aggravates and is often solved by administrative prohibition. Even within regional executive authorities (government of RF constituent entity) there is an inability to coordinate various programs with each other, although generally they manage to satisfactorily perform their responsibilities related to state and municipal assignment formation and issue and control over task fulfillment etc.

According to our research, in cases such as applying the industry method of budgeting (budget planning by objective), a budget institution is an object whereas the institution product (service, work) is a subject that symbolizes industry object result. However, for the territorial planning of budget fund expenditures this product is the object for which the funding line is established. Subject-object interests of industry, regional, interregional and federal budget fund holders meet at the collision points, and the holders are not always ready to allocate the required funds to the conflict “growth points” of innovative economics. The problem of object-subject division is closely related with the problem of adequately defining budget indicators. Thus, educational, research and scientific institutions, being innovative infrastructure objects, can be evaluated by quality indicators, i.e., various quality standards (federal state education standard), level of demand for scientific results (international, industry, regional) etc.

Therefore, by issuing the state assignment and providing it with funding, a state or municipal government authority replaces indicators and indices of scientific work quality by quantitative indices such as growth in the number of patents registered in the process of R&D, growth in the number of students admitted to post graduate school, growth in the number of defended candidate (Doctorate) thesis, publication activity etc. Most scientists and representatives of professional society believe the indices fail to be informative, and the contents of reports submitted by institutions to be ambiguous at best for management decision making. Nevertheless, the obtained results are used for the effectiveness evaluation of certain institutions, the scientific potential of the territory, and for making a decision on the allocation of funds for the region for a new financial period. Unfortunately however, the problem has not been solved in terms of methodology (Bortnyk et al., 2012; Vladimirov, 2011).

With regard to the fact that works and services are, in fact, indexes of federal and regional target programs decomposed to the level of a certain institution, principles of innovation policy should be established that would consider multiple levels of the Russian innovation system on one hand and the need for using methodologically valid tools of territorial (cluster policy) and

**Figure 1:** The connections between government programs and government assignments



industrial (target program system) management on the other (Ivanov, 2011; Kumakova, n.d; Aksenova, 2009; Algina and Bodnar, 2011).

The next step in reformatting the relations is the development of an effective organizational mechanism of government innovation policy formation and implementation that would eliminate the territorial-industrial misbalance and take account current changes in the budgeting process (Anshin et al., 2007; Baklanova, 2012).

Along with the creation of tooling elements (third step), it is necessary for each stage of the innovation project's implementation to form a set of methods and techniques to adequately represent the forms and content of management decision making procedures, without distorting the essential features and procedures for innovative type system regulation at each management level process (Anshin et al., 2007; Baklanova, 2012).

#### 4. CONCLUSION

Drawbacks in the methodological support of sustainable development of the national economy innovation sector have been determined and proved, which became strained due to budget mechanism shift to the new fundamental rules of interrelations on macro-, micro- and regional levels. As a result, the main trends were conceptually determined in the usage of principle approaches and the logic of their implementation in the renewed organizational methodological mechanism of the state innovation policy, as well as a set of methods and techniques that allows for a step-by-step management activity.

#### 5. RESTRICTIONS

Materials and results of the research are relevant and can be effectively applied within Russian Federation territory in the horizon period before 2018.

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