Assessment of Innovative Development Indicators of the Region

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Abstract—In accordance with the legislation in the development of a strategic plan for the region's development, special indicators should be developed, which we can use to monitor and evaluate the effectiveness of reaching the strategically significant goals. This article describes how to build a system of indicators within the areas of development of the region, as well as the factors influencing the content of selected indicators. It is shown that the direction of development of the region defined by the first level of the tree decomposition of strategically important objectives, reflecting the results of the analysis of external and internal factors, taking into account guidance given by the Government and the President of Russia [About national goals, 2020].

Keywords—goals, indicators, criteria, strategy, regions, directions

I. INTRODUCTION

At present, there is no consensus about which indicators characterize the main vector of development of the modern Russian region [Butov, Yurieva, 2016]. Currently, the Federal State Statistics Service collects a large amount of all kinds of information on the development of regions [Lapygin, Tulinova, 2019]. However, the Federal Law on Strategic Planning in the Russian Federation contains a rule that specific indicators should be determined before strategy development [On strategic planning, 2014]. It allows assessing the degree of achievement of the strategic regional goals. Moreover, the practice of indicators suggests that the effectiveness of monitoring the development of the region depends on correctly developed indicators [Misakov et al., 2017]. Today, the indicative planning demonstrates its effectiveness in many regions of different countries, which is based on the use of scorecards [Balassa, 1990; Riechel, 1990; Wrase, 1990].

Although, the recommendations of the Government of the Russian Federation [On the approval of the methodological ones, 2017] contain a list of strategic indicators, there remains a place for specific indicators reflecting the strategic uniqueness in the development of regions [Bogoviz et al., 2018; Slepneva et al., 2016]. Therefore, it is important to consider the issues of determining the noted indicators within the framework of promising areas of regional development in modern conditions.

II. RESULTS

Researchers of the Financial University under the Government of the Russian Federation, I.S. Minko and L.K. Shamin, justly point out the development of indicators for the
strategic development of regions begins with the definition of promising directions. They recommend to focus on the four directions: “It seems that the following four are adequate for the socio-economic system of the region (subject of the Federation) strategic directions (prospects) of development: 1) population, 2) state, 3) production, 4) finance” [Minko, Shamina, 2016, p. 101].

In another case, researchers, again, not systematically and without evidence, are building “the main directions that should characterize development indicators” [Kovarda V.V., 2018]: the development of society, economy, innovation and environment.

But you have to keep in mind that the development of the country's regions should be set in the directions recommended by the Ministry of Economic Development of the Russian Federation [On the approval of methodological guidelines, 2017]. It should be seen as directed and qualitative change in the region and the strategic development - as a qualitative change in the region, aimed at achieving a strategically meaningful goals. In this regard, it is important to establish all directions for achieving strategic goals, and then highlight among the indicated directions the most significant - priority ones [National Strategy, 2002; National Strategy, 2006; National Strategy, 2015].

Traditionally, when developing a strategy, the direction of regional development is determined by such factors as the existing specialization in terms of the production of products/services and the accumulated potential of the region. At the same time, various approaches of such directions are manifested, in the practice of determining the development directions that make up the content of regional strategies. As an alternative, one can consider a combination of directions and target orientations by government, formulated in the process of developing a strategy for the development of a particular region [Lapygin, 2019].

It should also be remembered that when forming the main content of each direction, in which, as a rule, several departments of the regional administration take part simultaneously (the tasks of implementing the strategy within several departments at the same time must be taken into account). It is necessary to organize group work, including both the primary development of projects and programs in each direction and the subsequent discussion of their content, in consideration of the influence of all factors identified in the process of analyzing the situation in the region and beyond.

It also important to take into account the goals set by the President in his decree on national goals and strategic objectives of development of the RF [about national goals, 2020] for the period up to 2030, during its transition from main directions to development indicators (Fig. 1). Moreover, these goals can be combined to form new combinations and directions of integral development in the region. It may also open up new prospects in the future.

As the researchers write, it is not enough just financial indicators to evaluate the success of the development of the region [Egorov, Sitnikov, 2017]. It also necessary to refer to the model of building a balanced scorecard [Kovarda, 2018] for commercial organizations or form a set of complex indicators [Johnston, Battaile, 2001; Lehrke, 2014].

They also point out that there are some drawbacks in practice both in the composition of indicators and in the method of their determination. Especially because these authors noted that, there is a need for statistical indicators that provide a comprehensive overview of the process under study in the development of the region.

If we return to the statistical indicators [On strategic planning, 2014], then among the abundance of general indicators (basic indicators about 1200). Among them we can find indicators for monitoring the execution of the Presidential Decree (40 of them); indicators that are recommended by the RF Ministry of Economic Development for use in the development of regional development strategies (there are 80 of them); indicators that allow monitoring in terms of the implementation of national projects (there are 140), as well as indicators for assessing the effectiveness of executive authorities decisions in the constituent entities of the Russian Federation (there are 15). It is not always possible to find indicators with directions that correspond to specific development goals in regions (Fig. 2).

The composition of indicators for each region should be balanced, according to experts in the subject area under consideration (for example, I.S.Minko and L.K. Shamina), but not exactly with the recommendations for the development of such systems for businesses, and in view of certain principles specific to the management of regional development. It is another matter that the principles proposed by these specialists do not have a consistency and violate strategic planning algorithms. For example, the authors write that an integral part of management based on the BSC (Balanced ScoreCard) is the development and implementation of specific programs and activities to achieve strategic and/or current goals [Minko,
Some researchers conclude, that a properly constructed balanced scorecard allows achieving a strict formulation of the developed strategy [Misakov et al., 2017, p. 209].

In addition, an erroneous conclusion is made that the development of a system of indicators "for managing the proportion of workers with the number of national projects, and the economic situation of the region" [Minko, Shamina, 2016, p. 103]. This is the final phase, which is preceded by steps to analyze various factors affecting the prospects for the region’s development, and to build a system of strategic goals and the strategy itself.

After completing the work on the strategy in general and the development directions in particular, it is useful to perform the SWOT-analysis procedure for each area, to build a "decision matrix" in each direction. From the content of the specified matrix, we go to the structural diagram of the direction and the matrix of "decision-goals", in order to build a tree of goals, and then for each goal generate indicators.

Balanced scorecards are proposed to build within the framework of strategic maps, which are chosen intuitively (expertly). In our approach, strategic maps correspond to the formulations of development directions obtained by constructing a hierarchical structure and highlighting the first level of decomposition. Elements of which represent the directions for further regional development.

For example, Table 1 shows the combinations of goals and indicators obtained during the Vladimir region's strategy development in 2019. In the given example, the formulation of the strategic goals of each stage reflects the orientation in the development of the region.

### Table 1: Correspondence of Indicators to Development Goals

<table>
<thead>
<tr>
<th>Name of the goals and objectives (sub-goals)</th>
<th>The name of indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>The strategic goal of Phase 1: Raise the gross regional product by investing innovation that will allow to realize the potential of the region.</td>
<td><strong>The share of innovative products</strong></td>
</tr>
<tr>
<td><strong>Fund disruptive innovations to drive technological innovation growth</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Realize the natural and created potential of the region</strong></td>
<td><strong>The share of deep processing of the region's natural resources</strong></td>
</tr>
<tr>
<td><strong>To occupy a niche in the domestic market due to import substitution</strong></td>
<td><strong>Increase in revenue from sales of products in the import substitution market segments</strong></td>
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<tr>
<td><strong>Attract skilled workers on the basis of income growth</strong></td>
<td><strong>Growth in the share of skilled workers</strong></td>
</tr>
<tr>
<td><strong>Increase GRP, ensuring high rates of economic growth by reducing transaction costs and attracting investments</strong></td>
<td><strong>Economic growth rates</strong></td>
</tr>
<tr>
<td><strong>Strategic goal of Phase 2: By creating clusters, to ensure an influx of qualified young labor force, increasing the intellectual capital of the region and its status as a territory of comfortable living</strong></td>
<td><strong>Ratios of regions</strong></td>
</tr>
<tr>
<td><strong>Form clusters on the principles of PPP and CSR</strong>, providing the status and growth of the economic potential of the region</td>
<td><strong>Rating of region</strong></td>
</tr>
<tr>
<td><strong>Increase the intellectual capital of the workforce in the region</strong></td>
<td><strong>Ratios of educational opportunities</strong></td>
</tr>
<tr>
<td><strong>Provide the region with the status of comfortable living for the population and modern infrastructure</strong></td>
<td><strong>Ratios of regional development in terms of comfortable living for the population.</strong></td>
</tr>
<tr>
<td><strong>Stimulate the flow of young skilled workforce</strong></td>
<td><strong>Ratios of young people in the region having a professional education.</strong></td>
</tr>
<tr>
<td><strong>Strategic goal of Phase 3: By improving the quality of life of the population, to ensure the growth of the number and status of the socio-economic situation of the region in the country and in the world</strong></td>
<td><strong>Rating of regions</strong></td>
</tr>
<tr>
<td><strong>Ensure a flow of skilled labor in the region</strong></td>
<td><strong>Rating of skilled labor.</strong></td>
</tr>
<tr>
<td><strong>Create comfortable living conditions for the population of the region, corresponding to a high quality of life</strong></td>
<td><strong>Population income. Home comfort.</strong></td>
</tr>
<tr>
<td><strong>Raise the status and economic potential of the region</strong></td>
<td><strong>Ratios of regional economic potential.</strong></td>
</tr>
</tbody>
</table>

First stage: orientation on goals, adequate to the current situation (as a result of the SWOT-analysis). Second stage: focus on achieving the main goal (Mission of the region). Third stage: focus on the target content of the Vision of the region.

### III. Conclusion

In conclusion, it should be noted that the indicators of the strategic development of modern Russian regions allow us to determine the degree of success in achieving goals in...
conditions, when their development are set by decisions of the President of the country and the Government.

The paper shows that when developing a strategy for a region, it is important to analyze factors of the external and internal environment in order to proceed to the construction of morphological "decision matrices". Matrices are aimed at opportunities and exploitation of the capabilities of the region. It helps to solve strategically significant problems and overcoming threats.

It has been established that the transition from decisions to the development goals of the region, taking into account the goals of the country's development, provides the basis for building a hierarchical structure. The first level of decomposition determines the directions for future development. These areas should be seen as a strategic card "goal-performance-criteria" in order to achieve goals.

As a result, it becomes possible to highlight the indicators that the federal statistics service and the regional executive authority collects. In other words, indicators will be analyzed independently in the process of implementing the strategy.

Thus, the proposed approach formalizes the transition from strategic goals to indicators of regional development within the framework of the obtained directions.

References


