ORGANIZATIONAL SUPPORT FOR THE IMPLEMENTATION OF FORESIGHT PROJECTS

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Abstract: *The analysis of the main stages of organizational support for the implementation of the Foresight project is given. The features of drawing up a balanced scorecard are indicated. The expediency of using the Delphi method in the implementation of the Foresight project, which is effective in forecasting the development of the economic sector.*
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The analysis of literary sources leads to the conclusion that the need to apply Foresight techniques and methods in determining the main guidelines for the development of the future is currently relevant and appropriate. Foresight is a process of selecting new directions, during which a consensus of opinions of various subjects of the innovation system is reached and connections between its elements are established. This method has become most widespread in countries with a developed culture of cooperation, cooperation within the national innovation system, the development of which is supported by the government [1].

Organizational support for the foresight project implementation takes place in three stages: Pre-foresight Stage, Foresight Stage and Post-foresight Stage.

The preliminary phase of foresight is the stage when the initiators of the foresight and the users of the results of its implementation have determined the goals and objectives and sources of financing for the formation of foresight.

In the second phase — Foresight Stage, all formed organizational institutions are involved, experts are working, work is underway in this area and interim and final documents are being prepared in the form of discussions, seminars, generalization of ongoing research and reports. The Post-foresight Stage monitors the expected changes in the future, monitors the implementation of selected scenarios for the development of the process, records the actions of the authorities and citizens in the transition from one scenario to another, repeats the stages of research, and verifies expected events.

The first place to start a foresight study is to outline the scope of foresight. The most common tools used for this are SWOT analysis or benchmarking. If SWOT analysis is more suitable for defining challenges and threats in a region, then it is

advisable for corporate foresight to take advantage of the opportunities provided by BSC technology -a balanced scorecard. This is an indicator that helps you track the implementation of goals. With the help of these tools, it is possible to identify those challenges and threats to which appropriate responses will be found in the future. In 1990, American scientists R. Kaplan and D. Norton investigated the operation of systems for measuring the results of economic activity of 12 large companies. These companies wanted to expand their measurement systems by including non-monetary indicators, which would increase the informative possibilities. The research results led to the formation of the Balanced Scorecard concept or "Strategic Map" or "Balanced Scorecard" [2]. Along with traditional systems, Balanced Scorecard also includes financial indicators as one of the most important criteria for evaluating performance, but emphasizes the importance of non-financial indicators that assess customer satisfaction, the effectiveness of internal business processes, and the potential of employees in order to ensure the long-term financial success of the company.

Based on the list of recorded challenges and threats, it is possible to determine the scope of the foresight. This indicator is one of the most important components of the organization of foresight formation as a technology of foresight. In this area, it is necessary to find the main points in the development of the object under study, which from recessive signs can turn into dominant elements in the future.

The initial set of key challenges and threats is formulated by the initiators (Stakeholders) of foresight and propagandists (Promoters). The first are people or organizations who express the idea of developing a foresight, and the second are interested in implementing the idea of conducting a foresight. A number of elements are usually considered as elements characterizing the scope of foresight (Scoping elements) [3].

Thus, the reasons determining the need for foresight (Rationales) are formulated first. In the course of the efforts of propagandists (Promoters), the image and status of a certain problem is formed, the foresight of the implementation of which is to be investigated. To the extent that the activities of propagandists are convincing, the reasons for the need to use foresight technology in this area are justified. But the image necessity of using foresight technology needs to be supported by a system of arguments, the presentation of which will give the basis for working out a vision of the future of a certain problem.

One of the arguments in favor of the need for foresight research is the procedure for choosing the type of foresight (Types) from a variety of possible options. In the selection process, the varieties and the vector of research are additionally justified. It is also important to determine the focus (Foresight Focus) of the study within the framework of the formulated Scope of foresight. The degree of specificity of foresight research and obtaining possible results depends on this. Next, the organizational level of foresight (Organizational levels) is outlined, within which the processes occurring, say, at the microeconomic level are not considered [4]. When the idea of these elements is fixed, the circle of potential users is outlined by the results of the foresight (Users). The most important element in delineating the scope of foresight (Score) is the definition of the foresight horizon (Time horizon) -the

period of time to which the fixation of the results of foresight or active forecasting is oriented. The foresight horizon is selected individually, depending on the chosen type of foresight or on the angle of the object that you would like to see in the future. Two more or less standard time boundaries of the foresight horizon are distinguished.

The time horizon is the maximum number of years for which active pre—vision is expected to be formed. When considering the time horizon of foresight, it is necessary to distinguish at least two processes for which time horizons are determined. The first involves establishing an optimal time horizon and analyzing the prospects for the development of science and technology. The essence of the second process is to implement the procedure for forming priority areas, selecting critical technologies and documenting them in the form of a list of critical technologies or a target program for future development. The methodology of foresight is chosen based on the objectives of foresight research and a specific field of application of foresight (Score). The methods and tools used in the foresight are quite diverse. For example, the Delphi method is often used in foresights. It was developed by American scientists Helmer, Dalkey and Gordon while researching the prospects for the development of the US military complex, and ten years later it was used in technological forecasting and corporate strategic planning.

The Delphi method is based on a survey of experts and respondents, but the purpose of such surveys is not only to provide analysts with information for subsequent processing, but also to provide feedback to respondents. Delphi does not mean a one—time survey, but at least two iterations of the survey of the same group of respondents (the classic version of Delphi is characterized by several iterations - from three to eight). In subsequent rounds, in addition to the same set of questions, respondents are provided with generalized survey results obtained in previous stages. Ideally, experts should receive information about what justifies certain judgments, especially if they are extreme or extraordinary judgments. Thus, feedback from respondents and giving them the opportunity to adjust their estimates accordingly is carried out in order to stimulate the exchange of information and, in the case of Delphi forecasts, allows individual experts to show how much their own estimates and expectations differ from those of the panel of experts. In addition, the anonymity of the surveys is designed to reduce the influence of the most active or reputable experts on the individual assessments of other panel members.

The scenario method provides for the allocation of a set of individual scenarios collectively covering all possible scenarios. At the same time, each individual scenario should allow for the possibility of fairly accurate prediction, and the total number of scenarios should be foreseeable. The role of scenarios has changed dramatically in foresight programs, which turns this method into a study of the future, without which practically no foresight program has been able to do lately. This is due to the fact that it has become obvious to all policy actors that the trajectories of development in the future may differ significantly from each other.

Goal tree construction and morphological analysis are the most well-known methods of normative forecasting. These methods are used to determine the conditions for achieving future goals. This process can be represented graphically as a tree. The goal tree allows you to detail the overall problem, consistently

highlighting smaller and smaller issues in it. As a result, we will get a display of various important aspects of the system and possible solutions to this problem. Morphological analysis implies the presentation of all possible solutions to the problem in the form of a single scheme in order to determine various options for future development. This approach is used when creating new products and when developing scenarios. Both methods are means of systematization of ideas about the subject under study [5]. They allow you to form unexpected options, new ideas about the future and new judgments about the ways of development. This is not to say that these tools are easy to use. They require an in-depth analysis of the problem by experts who know these methods and the use of accumulated experience. This work may require quite a lot of time, since the number of alternatives under consideration and their combinations can be huge. Even an incomplete representation of the studied areas or problems resulting from the use of these approaches can give a powerful intellectual boost, but it must certainly be followed by a laborious critical analysis.

Scanning the external environment is a tool with which you can get information about both a specific field of research and external factors. The environment scanning system makes it possible to identify emerging trends that may represent either obstacles or new opportunities. This process helps institutional structures to allocate their resources in such a way as to prevent or adequately respond to changes in the external environment. Changes occur very quickly and may be unexpected if there is no systematic scanning process for emerging changes. Social and economic systems are complex open systems. At the stage of transition to a knowledge society, the complexity of social and economic systems increases, the rhythm of evolution accelerates and uncertainties grow.

Scanning the environment should focus on three main areas. The first is existing, already formed trends, problems and environmental factors; the second is potentially possible changes that are not a reality today, but the probability of their occurrence in the future is quite high, they are already visible; and the third is possible so-called weak signals.

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