

# Evaluation System for the Russian Academy of Sciences: Objectives-Resources-Results Approach and R&D Indicators

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## Abstract

In February 2008 the Russian academic programme was adopted by the Government of the Russian Federation as a fact of the public intervention in science sphere. The programme introduced assessment for institutional academic activities, including science and educational ones.

According to the Programme, the Russian Academy of Sciences (RAS) decided to create an evaluation system for providing the assessment of the RAS Programme.

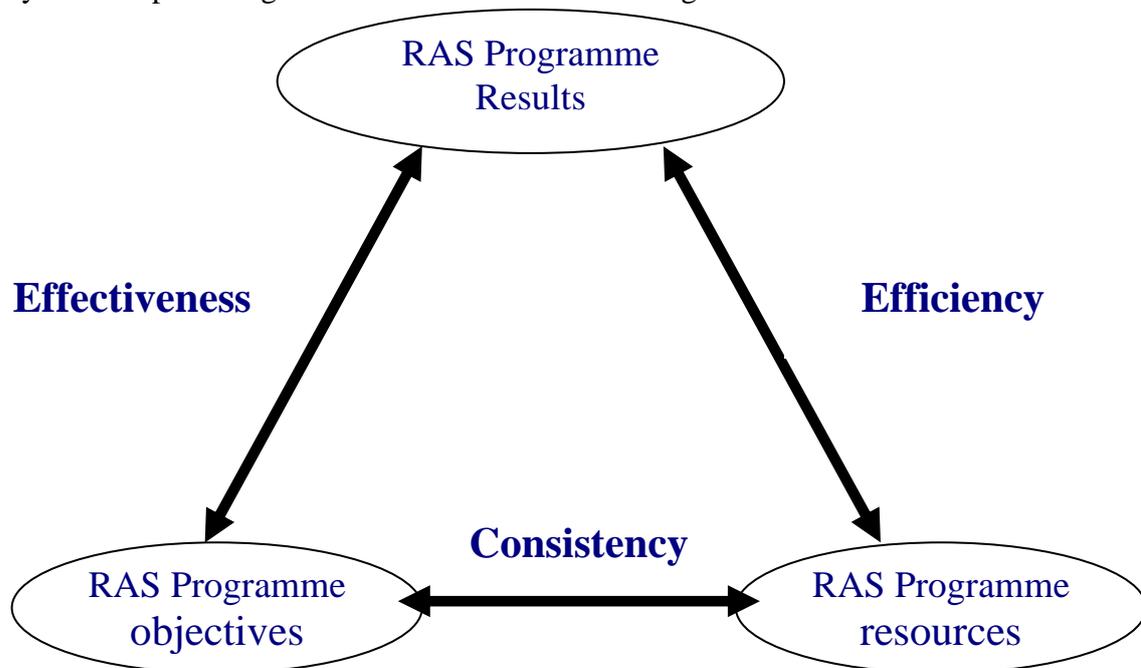


Figure 1. Objectives-Resources-Results Approach

In process of the evaluation system design developers from our Institute apply Objectives-Resources-Results Approach (see Figure 1). Within the Framework of the approach the developers have to obtain basic data, as follows:

- 1) Institutional levels of the RAS Programme monitoring and assessment;
- 2) Temporal stages of the RAS Programme monitoring and assessment;
- 3) Types of activities which are being monitored and assessed during the RAS Programme fulfilment;
- 4) Main lines of monitoring and assessment during the RAS Programme fulfilment.

Description of institutional levels of monitoring and assessment was given in [1, 2]. The pilot variant of this system should provide a performance assessment at four institutional levels:

- Macrolevel - the Russian Academy of Sciences as a whole;
- Mesolevel - Institutes of the Russian Academy of Sciences;
- Microlevel - Research teams of the institutes;
- Nanolevel - Scientists and engineers.

The temporal stages of the RAS Programme monitoring and assessment strongly resemble monitoring and assessment stages of EC framework programmes: ex-ante, mid-term, and ex-post [3].

The evaluation system has to provide the assessment for the institutional academic activities on the basis of indicators and other indices in:

- R&D sphere;
- Technology (patents) sphere;
- Education sphere.

Our study revealed that the most complicated task is to obtain access to legal documents in which assessment indicators and other indices divided into 6 categories are defined (lines of monitoring and

assessment): programme objectives, resources, results, consistency, effectiveness, and efficiency. Moreover, when monitoring and assessment procedures are held a critical necessity in legal documents with such definitions is experienced. In the report at the Conference in Vienna a classification scheme of indicators and other indices including only 3 categories was considered: resources, results, and efficiency [2]. The scheme was designed in order to classify indicators and indices within semantic dictionary of the evaluation system. It was integrated into the dictionary providing implementation of two stages of indicator meanings clarification. A need in such an auxiliary tool arose due to specific situation of those terms emergence and their original ambiguity. Most of the indicators lack definitions, examples of usage and application, etc. To solve the task of taking into account all the existing and potential, expected terms it was suggested to create a dictionary that could be easily completed by new terms by expanding the scheme. Hence, the next step of upgrading the dictionary is to add more categories in it (those from the above mentioned).

In the paper [2] top level of the classification scheme was described. It included five types of indices:

- Indicators are results evaluations calculated on basis of information resources of the evaluation system;

- Characteristics are indices of infrastructure and personal resources;

- Criteria are indices for decision making;

- Parameters are data, that are specified outside the evaluation system, for example, funding data;

- Expert evaluations are results of independent expertise with evaluation forms and reports.

Experience of designing the evaluation system pilot variant in 2008 showed that there was a strong need in the classification scheme further development as it lacked assessment indicators and other indices for the following 3 categories: programme objectives, consistency, and effectiveness. In addition to the scheme expansion a necessity in bringing in correspondence temporal stages of the RAS Programme monitoring (ex-ante, mid-term, ex-post) with 6 categories, indicators and other indices appeared.

In the report it is suggested to consider stage-indicator tables' structure (for each from 4 institutional levels) built on the basis of the correspondence above mentioned. It is planned to exploit the tables when discussing functions' specifications of the evaluation system with decision-makers.

## References

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