

Committee for Research Evaluations, Science Council of Japan (SCJ)

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## Present Status of Research Evaluations and its Future in Japan

### Summary

#### 1. Background of this report

Evaluations play an important role in executing the accountability for the expenses of funds for the research activities, and also in promoting the research activities and improving their quality. At present, research evaluations are externally requested in the context of the science and technology policy, and administrative reforming. On the other hand, various issues which cannot be overlooked, are emerged.

#### 2. Present status and issue

At present, many of peer review are done by the reviewers who are mostly active researchers, so that enormous times and energies are consumed on the occasion of evaluation for the both side of evaluators and evaluands (evaluated objects) in resulting in not only bringing about the shortage of research times, but also leading to formalistic evaluation and spreading the feeling of vain efforts to the evaluation works.

It is necessary to optimize and to refine the evaluation criteria in corresponding with characteristics of evaluands in order to promote the various research activities. But at present no enough reactions are done.

The evaluation of important research projects and programs supposes to be done by self-evaluation of each ministries and government office based on the Government Policy Evaluation Act, but external evaluation which makes use of the knowledge of the expert, is also recommended, and that is really executed for many cases. But the ministries and government offices that promote important research projects and programs, mostly decide their evaluators, criteria, and methods of evaluation by themselves, so that there will be a possibility that the equity and transparency of the

evaluation results may be doubtful.

Furthermore, it is necessary to establish the foundation of human and material resources in supporting the evaluation, but these bases are inadequately constructed.

### 3. Proposition

(1) What the evaluation of research projects should be in the future?

① Evaluation corresponding to the characteristics of research projects

The evaluation of the research projects should be done based on the objectives of the research, and it should be the principle that the evaluation criteria should depend on the types of the research. It is inappropriate for the evaluation of the fundamental researches to express their results as numerical indicators in short-time since it requires some time that results of the fundamental research will turn out to be valuable. It should become to be principles that the evaluation of research results should be judged by the peer review who can decide their future values. For the evaluation of the applied researches and developments, it is important to evaluate research projects with check-lists whether the research is planned according with their scenario to the practical use. The interdisciplinary research or challenging research should be evaluated by evaluators who acquaint their research fields well, with evaluation criteria corresponding to their characteristics of researches, and the developments of evaluation culture will be strongly desired.

② Research evaluation and public understanding

For the research results and evaluation results of the pure or fundamental researches which will be difficult for the people to be understood by the peer reviewers, it requires to contrive to explain them plainly in view of the accountability for the public, and then attaining of the public support will be essential.

(2) Necessity of third-party evaluation and its future scheme

① What third-party evaluation should be?

The third-party evaluation is defined as the evaluation such that (1) a third-party body unrelated to the evaluands evaluates, (2) with independent criteria of evaluation, (3) by independently chosen evaluator. For the important research projects and programs, the third-party evaluation should be expanded, and it is required to improve the equity, transparency, and quality of the evaluation.

## ② Executive system

It is desirable that the third-party evaluation consists of the evaluators with high expertise concerning of various research field, and ones with high expertise concerning of the system and method of the evaluation. Whereas, in order to maintain the research times for active researchers, taking steps to reduce the burdens for evaluations, will be required. It is also important to establish the system of meta-evaluation in guaranteeing the quality of evaluation where third-party including active researchers inspects the process of evaluation and the results of evaluation.

For the research activities with public funds, it is desirable that about 1% of the funds should be spent for the inquiry and analysis of their evaluation.

## ③ Some cases as third-party evaluation

The objects of third-party evaluation, in general, will be big research projects, programs, funding-system, and policies, with a large amount of public funds, whose outcomes and necessity should be inspected rigidly. If the third-party evaluation is conducted by an organization with strong public characteristics such as the National Academies in the USA, it would not only evaluate the science and technology policy, research programs, and important research projects, but also play a role of meta-evaluation of a whole national evaluation system. Furthermore, it is required to investigate the evaluation methods for various research fields such as humanity and social sciences.

## ④ Necessity of training of human resources

In order to continue to execute the third-party evaluation in future, it is essential to nourish the human resources relevant to the evaluation. Many of researchers have experiences as evaluator for researches, but they are unaccustomed to special inquiry and analysis for the evaluation except acting as their peer reviewer, so that it is recommended that their talent would be polished as evaluator through the evaluation training program. At the same time, it is necessary to nourish the talents who have special knowledge of evaluation.