

Evaluation of Operating Results for
Japan Science and Technology Agency
in the 3rd Mid to Long-Term Objective Period

August 2017

Minister of Education, Culture, Sports, Science and Technology

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1. Items related to the evaluation		
Agency	Japan Science and Technology Agency	
FY for evaluation	Evaluation of operating results during the period of the mid to long-term objectives	the 3 rd mid to long-term objective period
	Mid to long-term objective period	FY2012-2016

2. Items related to the assessor			
The Competent Minister	Minister of Education, Culture, Sports, Science and Technology		
Incorporated jurisdiction dept	Science and Technology Policy Bureau	Dept. and person in charge	Knowledge Infrastructure Policy Division, Masaharu Shiozaki
Evaluation and inspection dept	Science and Technology Policy Bureau	Dept. and person in charge	Planning and Evaluation Division, Kenji Matsuoka

3. Items regarding implementation of the evaluation
<p>June 12, 2017: Japan Science and Technology Agency Sub-Committee (hereinafter referred to as “JST Sub-Committee”) members conducted a survey of the Faculty of Science and Engineering, Waseda University (CREST).</p> <p>June 13, 2017: JST Sub-Committee members conducted a survey of the Tokyo University of Science (A-STEP).</p> <p>June 26, 2017: JST Sub-Committee (9th) was held, where a hearing was conducted about results of the self-evaluation by JST board members (President, Executive Directors and Auditors), and the staff.</p> <p>June 30, 2017: A JST Sub-Committee (10th) was held, where, in light of the results of the self-evaluation as explained by JST at the 9th Sub-Committee, necessary counsel was obtained from Sub-Committee members on the evaluation draft by the Competent Minister.</p> <p>July 11, 2017: A JST Sub-Committee (11th) was held, where, in light of the results of the self-evaluation as explained by JST at the 9th Sub-Committee, necessary advice was obtained from Sub-Committee members on the evaluation draft by Competent Minister.</p> <p>August 3, 2017: Received guidance based on the scientific knowledge from members in implementing the Competent Minister’s evaluation in relation to the National Research and Development Agency Council under the Ministry of Education, Culture, Sports, Science and Technology (10th).</p>

4. Important items and others relating to the evaluation
No special matters to note

1. Overall evaluation		
Rating* (S, A, B, C, D)	A	(Reference: Estimated evaluation)
		A
Reasons for rating	As shown in the overall evaluation of the agency as a whole, more progress of performance than expected in the mid to long-term plan and the FY plan is recognized.	

2. Evaluation of the whole agency

○In the medium-term plan, JST, as a core executing agency of the Basic Science and Technology Plan, implements projects on “promotion of producing science and technology innovation” and “formation of science and technology foundation for producing science and technology innovation” as two pillars. As a means of the “promotion of producing science and technology innovation,” JST establishes a network type research institute and, by defining (i) implementation of basic research and (ii) unified implementation of strategic university-industry collaborative projects connecting the outcome of basic research (hereinafter referred to as “new technology”) with the needs of the industry, building of a framework to develop cross-divisional strategies and strengthening strategic expansion of international research and development activities as the “formation of science and technology infrastructure for producing science and technology innovation,” JST is making efforts for fulfilling/enhancing a framework to collect/provide science and technology information, including research results, fostering next generation human resources, and promoting interactive dialogue/developing the method, and conducting science and technology communication activities that provide a place for interactive exchanges. Furthermore, in response to the Great East Japan Earthquake, the agency also implements appropriate measures, utilizing the know-how and research and development results that the agency has cultivated in its previous projects to the fullest extent, including the realization of reconstruction initiatives as determined at the East Japan Great Earthquake Disaster Reconstruction Conference, and matching the needs of disaster areas and the technical seeds of universities according to the progress of reconstruction and revitalization. The management of lodging houses for foreigners is found to have partly underperformed the targeted value. However, most projects are equal to or higher than the set objectives. In particular, since the projects listed below are recognized as progressing more than stipulated in the initial plan, they are rated “A.”

○In the research and development fields, there were many remarkable achievements having a social impact, such as the “Nobel Prize in Physiology or Medicine received by Mr. Shinya Yamanaka” and the results having led to the winning of the 2014 Nobel Prize in Physics (blue LED).

○In industry-academia collaborative projects, the agency has been in charge of providing support according to the stages of research from basic research to practical application, and the research results so generated are making progress continuously toward practical application in cooperation with the systems in and outside JST and other institutions.

○Toward rebuilding from the Great East Japan Earthquake, the agency is creating research and development results greatly contributing to the reconstruction of affected areas and a change in the industry-academic structure through detailed support for local companies in the said area, by taking advantage of its strengths.

○Regarding the training of next generation human resources, while the total number of participants to the domestic science and technology contests as supported by the agency significantly exceeding the target, the agency made efforts to implement business reforms and review its activities effectively, with focus on programs that promoted development of talent among the junior and high school students, and initiated further efforts making developmental improvements, including starting new programs, such as Global Science Campus and Junior Doctor Training School based on the results of the above efforts.

○The agency was highly evaluated externally, as clearly shown by selection of JST among the “TOP 25 global innovators: National research institutions” for two consecutive years (ranking third in the world and first in Japan in 2015; and fourth in the world and first in Japan in 2016), and by its selection among the “TOP 100 global innovators 2015,” the first Japanese public institution to gain such a respectable position internationally.

3. Issues to be solved and /or improved for each subject

○In order to further enhance and strengthen its research business to maximize the research and development results in the future, JST needs not only to support other institutions (universities, etc.) but also to undertake independent research and development activities, by taking advantage of its own functions as a think tank and the science/technology information base it owns.

○For projects rated C, it is necessary to continue making efforts for improvement. (See page 225)

4. Other items

Main opinions of the council on research and development	No special matters to note
Auditor’s special comments	No special matters to note

*1 S: Based on the National Research and Development Agency’s aims, businesses, mid to long-term objectives and so on, as a result of comprehensive consideration based on some circumstances regarding the agency’s business achievements, efforts and so on through its activities, especially the creation of considerable achievements, anticipated creation of special achievements in the future and so on toward “maximization of R&D achievements” under the conditions of appropriate, effective and efficient operations are recognized.

A: Based on the National Research and Development Agency’s aims, businesses, mid to long-term objectives and so on, as a result of comprehensive consideration based on some circumstances regarding the agency’s business achievements, efforts and so on through its activities, the creation of considerable achievements, anticipated creation of achievements in the future and so on toward “maximization of R&D achievements” under the conditions of appropriate, effective and efficient operations are recognized.

B: Based on the National Research and Development Agency’s aims, business, mid to long-term objectives and so on, as a result of comprehensive consideration based on some circumstances regarding the agency’s business achievement, efforts and so on through its activities, a certain degree of expectation for the creation of achievement and creation of achievement in the future toward “maximization of R&D achievements” were recognized, and steady business operations have been also recognized.

- C: Based on the National Research and Development Agency's aims, businesses, mid to long-term objectives and so on, as a result of comprehensive consideration based on some circumstances regarding the agency's business achievements, efforts and so on through its activities, the creation of achievements, further drastic efforts and improvements toward "maximization of R&D achievements" or "the appropriate, effective and efficient operations" are anticipated.
- D: Based on the National Research and Development Agency's aims, businesses, mid to long-term objectives and so on, as a result of comprehensive consideration based on some circumstances regarding the agency's business achievements, efforts and so on through its activities, special efforts and improvements including a fundamental drastic review, toward "maximization of R&D achievements" or "the appropriate, effective and efficient operations" are required.

Mid to long-term objectives (Mid to long-term plan)	FY Ratings					Mid to long-term objective period evaluation		No. of document each item	Remarks
	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Estimated evaluation	Term performance evaluation		
I. Maximization of R&D achievements and quality improvement of the other operations									
1. Strengthening research and development strategic planning function for producing science and technology innovation	/	/	/	/	/	/	/		
①Proposal for research, analysis, and research and development strategy for producing science and technology innovation (Center for Research and Development Strategy Program)	A	A	A	A	A	A	A	1.①	
①Proposal for research, analysis, and research and development strategy for producing science and technology innovation (China Research and Communication Center Program)	A	A	B	A	B	B	B	1.①	
②Research, and analysis and proposal for realizing carbon society, and proposal for society scenario and strategy for achieving a low-carbon society	A	A	B	B	B	B	B	1.②	
2. Producing science and technology innovation	/	/	/	/	/	/	/		
(1) Promotion of	/	/	/	/	/	/	/		

Mid to long-term objectives (Mid to long-term plan)	FY Ratings					Mid to long-term objective period evaluation		No. of document each item	Remarks
	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Estimated evaluation	Term performance evaluation		
II. Items concerning the efficiency of the administration of the operations									
1. Formation and operation of organization	A	A	B	B	B	B	B	II.-1	
2. Streamlining and efficiency of operations	A	A	B	B	B	B	B	II.-2	
3. Improvement of financial conditions	A	A	B	B	B	B	B	II.-3	
III. Budget / income and expenditure plan, and funding plan									
	A	A	B	B	B	B	B	III	
IV. Limit amount of short-term borrowing									

producing science and technology innovation									
①Promotion of strategic research and development	S	S	A	A	A	S	A	2.(1)①	
②Expanding research and development results by industry-academia collaboration	A	A	A	A	A	A	A	2.(1)②	
③Support for reconstruction and reformation from the Great East Japan Earthquake	A	A	S	A		S	S	2.(1)③	
④Promotion of international science and technology cooperation research	S	S	A	A	A	A	A	2.(1)④	
⑤Building of an innovation hub centered on research and development agencies				B	B	B	B	2.(1)⑤	
⑥Utilization support for intellectual property	A	A	B	B	B	B	B	2.(1)⑥	
⑦Promotion of innovative technology research development		A	B	B	B	B	B	2.(1)⑦	
(2) Formation of science and technology foundation for producing science and technology innovation									
①Construction of knowledge infrastructure	S	A	B	B	B	B	B	2.(2)①	
②Construction of personnel infrastructure supporting science technology innovation						B	B	2.(2)②	
a. Training of human resources leading the next-generation of science and technology	A	A	A	B	B	A	A	2.(2)②	
b. Training of human			B	B	B	B	B	2.(2)②	

									IV	
IV. 2 If the agency has any unnecessary property or any property that is expected to be unnecessary property, a plan for disposal of such property										
	A	A	B	B	B	B	B	B	IV.2	
V. If the agency intends to transfer or provide as collateral any important property other than the property provided for in the preceding item, a plan therefor;										
									V	
VI. Purpose of using accumulated profit										
						B	B	B	VI	
VII. Other matters concerning the administration of the operations specified by ordinance of the competent ministry										
Plans for equipment and facilities										
Plans for personnel										
Debt burden over the mid to long-term objective period	A	A	B	B	B	B	B	B	VII	
Use of a reserve fund										

resources related to science and technology innovation									
c. Construction of international personnel exchanges foundation			B	B	A	B	B	2.(2)②	
c. Building the base of personnel exchange with foreign countries (among which, management of accommodations for foreigners is also included)			C	C	B	C	C	2.(2)②	
c. Building the base of personnel exchange with foreign countries (among which, the Japan-Asia Youth Exchange Program in Science is also included)			A	A	A	A	A	2.(2)②	
d. Fostering program managers				B	B	B	B	2.(2)②	
e. Promotion of fair research activities				B	B	B	B	2.(2)②	
③Construction of communication infrastructure									
③Construction of communication infrastructure (Center for Science Communication)			B	B	B	B	B	2.(2)③	
③Construction of communication infrastructure (National Museum of Emerging Science and Innovation (Miraikan))	A	A	S	A	A	A	A	2.(2)③	
3. Other required program for government affairs/business operations									
(1) Promotion of projects accepted by related administrative agencies	A	A	B	B	B	B	B	3.(1)	
(2) Implementation of			B	B	B	B	B	3.(2)	

Cross-ministerial Strategic Innovation Promotion Program (SIP)									
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* Evaluations up to FY 2013 were made based on “the basic guideline regarding business results evaluation for Incorporated Administrative Agency under MEXT’s jurisdiction” (The Evaluation Committee for Incorporated Administrative Agency under MEXT’s jurisdiction on March 22, 2002).

Also, the evaluations after FY2014 are made based on “criteria relating to the evaluation for Incorporative Administrative Agency under MEXT’s jurisdiction” (decided by the Minister of MEXT in June 30, 2015). The details are as follows.

Ratings up to FY2013	Ratings after FY2014
<p>S: Outstanding achievements are fulfilled. (Without providing a cross-cutting objective standard for the agency in advance, S is rated according to the characteristics of the agency’s business operations.)</p> <p>A: Achievements are in line with the medium-term plan, or beyond, or are steadily being implemented toward a medium-term objective, or beyond (achievement rate for a medium-term plan should be over 100% in a given FY).</p> <p>B: In some ways the plan is not being implemented in line with medium-term plan, however, a medium-term objective may be achieved by means of ideas and efforts (achievement rate for the medium-term plan should be 70% to 100%).</p> <p>C: The implementation of the plan is behind the medium-term objective, therefore, improvement of business is necessary in order to realize the achievement of the medium-term objective (achievement rate for the medium-term plan in a given FY is less than 70%).</p> <p>F: The Evaluation Committee needs to warn an agency concerning the improvement of its business management and others (Without providing an objective standard in advance, F is rated as a result of judgement that a warning concerning business improvement is necessary).</p>	<p>[Administrative and projects related to research and development (I)]</p> <p>S: Based on the National Research and Development Agency’s aims, businesses, mid to long-term objectives and so on, and as a result of comprehensive consideration based on some circumstances regarding the agency’s business achievements, efforts and so on through its activities, especially the creation of considerable achievements, anticipated creation of special achievements in the future and so on toward “maximization of R&D achievements” under the conditions of appropriate, effective, and efficient operations are recognized.</p> <p>A: Based on the National Research and Development Agency’s aims, businesses, mid to long-term objectives and so on, and as a result of comprehensive consideration based on some circumstances regarding the agency’s business achievements, efforts and so on through its activities, the creation of considerable achievements, anticipated creation of achievements in the future and so on toward “maximization of R&D achievements” under the conditions of appropriate, effective, and efficient operations are recognized.</p> <p>B: Based on the National Research and Development Agency’s aims, businesses, mid to long-term objectives and so on, and as a result of comprehensive consideration based on some circumstances regarding the agency’s business achievement, efforts and so on through its activities, a certain degree of expectation for the creation of achievement and creation of achievement in the future toward “maximization of R&D achievements” were recognized, and steady business operations have been also recognized.</p> <p>C: Based on the National Research and Development Agency’s aims, businesses, mid to long-term objectives and so on, and as a result of comprehensive consideration based on some circumstances regarding the agency’s business achievements, efforts and so on through its activities, the creation of achievements, further drastic efforts and improvements toward “maximization of R&D achievements” or the “appropriate, effective, and efficient operations” are anticipated.</p> <p>D: Based on the National Research and Development Agency’s aims, businesses, mid to long-term objectives and so on, and as a result of comprehensive consideration based on some circumstances regarding the agency’s business achievements, efforts through its activities, special efforts and improvements including a fundamental drastic review, toward “maximization of R&D achievements” or the “appropriate, effective, and efficient operations” are required.</p> <p>[Other than administrative work and projects regarding research and development (After II)]</p> <p>S: Through the activities of a corporation, remarkable performance exceeding the intended objectives is recognized quantitatively and qualitatively in the medium-term plan (in terms of quantitative indicators, 120% or more vis-à-vis planned medium-term value (or planned FY value), and remarkable performance is also recognized qualitatively).</p> <p>A: Through the activities of a corporation, remarkable performance exceeding the intended objectives is recognized in the medium-term plan (in terms of quantitative indicators, 120% or more vis-à-vis planned medium-term value (or planned FY value)).</p> <p>B: Performance exceeding the intended objectives is recognized in the medium-term plan (in terms of quantitative indicators, 100% or more but less than 120% vis-à-vis planned medium-term value (or planned FY value)).</p> <p>C: Performance falls below the intended objectives in the medium-term plan, requiring improved performance (in terms of quantitative indicators, 80% or more but less than 100% vis-à-vis planned medium-term value (or planned FY value)).</p> <p>D: Performance falls below the intended objectives in the medium-term plan, requiring drastic improvement of business including its abolition (in terms of quantitative indicators, less than 80% vis-à-vis planned medium-term values (or planned FY value), or it is recognized that the competent Minister is required to ask for improving business operations or taking other necessary measures).</p>