

Policy Directions for Ensuring Research Integrity
in Response to New Risks Associated with
Increasing Internationalization and Openness of Research Activities

April 27, 2021

Integrated Innovation Strategy Promotion Council Decision

1. Purpose

Open science is the basic principle for promoting the creation of science and technology innovation in Japan, and it is necessary to continue to strongly drive forward international joint research with diverse partners. At the same time, in recent years, there have been concerns of damage to the values, such as openness and transparency, which form the base of the research environment, and the danger of researchers unintentionally falling into conflicts of interest and commitment due to the new risks associated with internationalization and increasing openness of research activities. Under such circumstances, it is indispensable for Japan to develop an internationally reliable research environment to promote necessary international cooperation and exchange while protecting the values forming the base of the research environment.

Taking into consideration this situation, the government, based on Integrated Innovation Strategy 2020 (July 17, 2020 Cabinet Decision) and Science, Technology, and Innovation Basic Plan (March 26, 2021 Cabinet Decision), will start working on the following matters as soon as possible in collaboration with researchers, universities, research institutions, and research funding agencies¹ to support to autonomously secure of the soundness and fairness of research (research integrity²) of researchers, universities, and research institutions.³

2. Matters to be addressed going forward

(1) Initiatives related to appropriate information disclosure by researchers

When researchers engage, in particular, in international collaboration upon recognizing the new risks associated with increasing internationalization and openness of research activities, the government will implement the following initiatives to promote researchers' understanding of the necessity of reporting and declaring required information (including reporting and declaration when such information is updated) to the organizations they belong to and research funding

¹ In this policy directions, research funding agencies include ministries and agencies directly executing competitive research fund projects.

² In this policy directions, research integrity means the soundness and fairness of research, which is required to be newly secured in response to new risks associated with increasing internationalization and openness of research.

³ In this policy directions, universities and research institutions denote research and development institutions (government testing and research institutions, National Research and Development Agencies, universities, and organizations involved in research and development at private businesses) engaging in research and development using funds granted, subsidized, or commissioned by the government or research funding agencies. It is expected that other research and development institutions would also implement initiatives contributing to autonomously secure of research integrity.

agencies as well as of the importance of ensuring transparency of their research activities and accountability.

- (i) Prepare, publish, and distribute templates of checklists for researchers and the administrative departments of the organizations they belong to and promote their use in training at universities and research institutions. Further, update the checklist samples as necessary by taking into account the international trends so as to harmonize them with foreign countries. [Cabinet Office, Ministry of Education, Culture, Sports, Science and Technology (MEXT), and other agencies]
- (ii) Conduct briefings and seminars for researchers, universities, and research institutions to build understanding by sharing cases that are assumed to be new risks in Japan and abroad and example of actual cases of responding to such risks. [Cabinet Office, Ministry of Education, Culture, Sports, Science and Technology (MEXT), and other agencies]

(2) Initiatives related to responses by organizations which researchers belong to

The government will implement the following initiatives for enabling universities, research institutions, and others to receive reports and updates of information required for personnel affairs of their researchers and for organizational risk management (work experience, research background, affiliated institutions and roles of concurrent positions, research funds and other support they are receiving from other organizations⁴ and the counterpart at these organizations), and carry out appropriate risk management similarly to management of conflicts of interest and commitment in industry-academia collaboration activities by establishing rules and management system for conflicts of interest and commitment⁵ and other such matters based on reported and updated information.

- (i) Conduct briefings and seminars for researchers, universities, and research institutions to build understanding by sharing cases that are assumed to be new risks in Japan and abroad and example of actual cases of responding to such risks including explanation of the checklist in training. [Cabinet Office, Ministry of Education, Culture, Sports, Science and Technology (MEXT), and other agencies]
- (ii) Based on this policy directions, widely inform and communicate the necessity of establishing related rules and management structure to universities and research institutions under its jurisdiction and provide necessary support considering burden of the involved parties. [Ministries and agencies with jurisdiction over universities and research institutions]

⁴ In this policy directions, support other than research funds includes free provision of goods such as research facilities, equipment, and devices and receiving free provision of services.

⁵ In this policy directions, conflict of interest and commitment denotes a situation where interest a researcher or a university and a research institution gains through research activities (including royalty income, subsidiary compensation, private equity, and research results) collide or conflict with commitment required in research and development using funds granted, subsidized, or commissioned by the government or research funding agencies as well as responsibilities required of researchers belonging to respective institutions.

(3) Initiatives related to responses by research funding agencies

Research funding agencies have conventionally sought principal investigators and co-investigators of a research topic to submit information, such as the status of other competitive funds in Japan they receive, upon applying for research funds. In addition to this, it is necessary to request them to submit information required for ensuring transparency of their research activities including research funds being received from overseas. To this end, the government will implement the following initiatives.

- (i) Revise the Guidelines for Appropriate Execution of Competitive Funds (agreement by the Inter-Ministry/Agency Liaison Group Regarding Competitive Research Funds revised on June 22, 2017) as early as possible in 2021 to include not only competitive funds but competitive research fund projects in the target and clarify the scope and necessary process regarding the following responses by research funding agencies and incorporate them in the solicitation guidelines and application documents of the projects. Upon doing so, sort out and clarify the treatment of information, such as joint research for which a non-disclosure agreement is signed, including the format of the confidentiality obligation for those who handle the said information, so that it would not constrain the activities of commitment in industry-academia collaboration, or other activities. [Cabinet Office, ministries and agencies involved in competitive research funds]
 - a. In all competitive research fund projects, research funding agencies require principal investigators and co-investigators of the research topics to submit (a) information regarding all research funds which the researcher is currently applying for or receiving, such as subsidies, research grants, joint research funds, and consigned research funds in both Japan and abroad, not only competitive research funds in Japan alone, and (b) information regarding all organizations they currently belong to and their positions (including concurrent positions, participation in a foreign recruitment program, the position of honorary professor without employment contract) from the perspective of eliminating irrational overlap and excessive concentration.
 - b. Research funding agencies reduce burden on researchers and organizations they belong to by enabling ministries and agencies involved in competitive research funds and allocation organizations to appropriately share information obtained in a. through utilization of the revised Cross-ministerial R&D Management System (e-Rad) as described in (ii).
 - c. Research funding agencies require applicants to pledge that they have appropriately reported information required for ensuring transparency of all research activities where they are involved, including donation and non-fund support such as facilities and equipment, in addition to information regarding research funds and concurrent positions described in a. to the organizations they belong to based on related rules.

- d. Research funding agencies require applicants to submit information regarding facilities and equipment the applicants received and are using in research projects other than the said topic in c. in a similar manner as information on research funds from the perspective of confirming whether the research topic can be sufficiently executed without irrational duplication and excessive concentration. However, as it is necessary to clarify the scope of information that should be submitted, while taking into consideration the current situation of universities and research institutions, research funding agencies shall clearly state in the solicitation guidelines that the organizations the applicants belong to may be requested to submit information regarding the situation of grasping and management of the said information in addition to the applicants' pledge in c for the time being.
 - e. Research funding agencies shall clearly state in the solicitation guidelines that it is important for organizations the applicants belong to develop rules regarding conflicts of interest and commitment based on this policy directions and that they may verify with the organizations the applicants belong to and confirm the status of establishment of such rules and the status of their grasping and management of information as necessary.
 - f. Research funding agencies shall clearly state in the solicitation guidelines that when irrational overlap or excessive concentration of research funds, stipulated in the previously mentioned Guidelines for Appropriate Execution of Competitive Funds, is confirmed or when factually incorrect entries are made in the application form, the research topic may be rejected or withdrawn from selection or there could be reduction in the grant amount as before; and if it is confirmed that an applicant is receiving research funds through falsehood or other unfair means, such applicants will be required to return the funds, their eligibility for application to the concerned competitive research funds may be restricted, and their applications to other competitive research funds including those offered by other ministries and agencies may be restricted.
- (ii) Study the concept of utilization of Cross-ministerial R&D Management System (e-Rad) to reduce the burden on individual researchers and the organizations they belong to and realize a more efficient competitive research fund application process and revise the system to make it functional from the solicitations in fiscal year 2022. [Cabinet Office]

(4) Follow-up

In fiscal year 2022, the government grasps and publishes the status of initiatives to strengthen training and development of rules and organization regarding conflicts of interest and commitment by universities and research institutions, and

initiatives by research funding agencies (including revision of solicitation guidelines) and that they seek concerned organizations to make improvements when necessary. [Cabinet Office, ministries and agencies with jurisdiction over universities and research institutions, and ministries and agencies involved in competitive research funds]

(5) Points to note

- (i) The government, along with having continued dialogues with universities, research institutions, and private enterprises, shall take into consideration the characteristics, scale, and the actual situation of the universities, research institutions, and private enterprises and that of the research expense system to make the policy highly efficient and effective. In this process, the government should aim to improve the research environment of the country while considering the burden of the involved parties. [Cabinet Office, ministries and agencies with jurisdiction over universities and research institutions, and ministries and agencies involved in competitive research funds]
- (ii) Offer information and provide consultation regarding the initiatives of (1) to (3) of 2. to researchers, organizations they belong to, and research funding agencies. [Cabinet Office, ministries and agencies with jurisdiction over universities and research institutions, and ministries and agencies involved in competitive research funds]
- (iii) Appropriately collaborate also with the initiatives regarding security trade control. Ministry of Economy, Trade and Industry (METI) in particular should offer information and provide consultation regarding concerns such as joint research with an organization on which restrictions are put in place overseas, although it is not on the list of enterprises and organizations regarding security trade control it prepares and publishes (the End User List). [METI]
- (iv) Carry out necessary discussions in a timely manner by taking into consideration the trends in foreign countries and the follow-up status. [Cabinet Office, ministries and agencies with jurisdiction over universities and research institutions, and ministries and agencies involved in competitive research funds]