The implementation of this business is premised on the establishment of a budget since these guidelines are based on the government budget for FY2020. When applying, please note that the application guidelines are subject to change until the budget is confirmed. Any changes made will be posted on the website of the support center. Please check this regularly.

"FY2020 Research Program on Development of Innovative Technology (New)"

Application Guidelines (Common items)

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1 Business details

(1) Objective

Japan's agriculture, forestry, fisheries, and food industries require research and development (R&D) to create innovative technologies, products, and services that break the boundaries of conventional wisdom to strengthen competitiveness and generate dynamic growth.

As part of an effort to encourage innovation, the Ministry of Agriculture, Forestry and Fisheries (MAFF) created the Field for Knowledge Integration and Innovation (FKII) in April 2016 as a platform for open innovation, thereby promoting research collaboration among industry, academia, and government to introduce new ideas and technologies across a range of different fields.

In future proposal-based R&D programs, a focus on FKII initiatives is essential to increase innovation and initiate change.

Based on this, the Bio-oriented Technology Research Advancement Institution (BRAIN) in the National Agriculture and Food Research Organization (NARO) are commissioning research through an open call for applications to the "Research Program on Development of Innovative Technology", with a focus on promoting proposal-based R&D through FKII to initiate change for the development of innovative technologies, products, and services that break the boundaries of conventional wisdom.

BRAIN supports high-quality R&D to develop a stable supply of safe, reliable, high-quality agriculture, forestry and fishery, and food products and support the growth of agriculture, forest and fisheries as strong industries. Moreover, it leads to develop a technical innovation in the agriculture, forestry and fisheries sectors, with the aim of increasing overseas market share for these industries, thereby contributing to the government's economic growth policy (GDP target of 600 trillion yen). Therefore, when applying, applicants should consider BRAIN's role and outline the theme for which they are proposing a solution, the scope of the results they expect to achieve, and the goal of the research over the period of its practical application. The research plan prepared by applicants should also demonstrate a clear awareness of how their research will be implemented in society.

In addition, a roadmap for the achievement of research goals established by applicants will be evaluated by comparing to the annual progress. Applicants should consider this when creating their research plan.

To ensure the achievement of business goal, administration is executed through the appointment of a program director (PD) and a research leader assisting PD to oversee the progress of and instruction for each research project. Applicants are asked to give them their full cooperation.

(2) Scope of business

The business aims to support R&D from the basic and application stages up to the practical stage as these relate to the development of the agriculture, forestry and fisheries, and food industries as well as the creation of new fields of business.

"Basic stage" R&D refers to innovative and challenging research that creates ideas or "seeds" for new development; "Applied stage" R&D refers to research based on the ideas created at the basic stage that are ready to be applied; and "Development stage" R&D refers to applied research where the results are ready to be implemented in the outside world.

Please refer to the application requirements for each stage for more details of each research stage.

In addition, the following research projects are not eligible for application since the focus of this business is on research topics that primarily deal with the development of natural science research and technology. Please note that any research submissions under the following categories will be excluded from review.

- Research topics mainly dealing with the social sciences;
- Research topics that do not contribute to the development of the agriculture, forestry and fisheries, or food industries;
 - Research topics specified in the FY2020 "Promotion of Strategic Project Research."

(3) Seamless transition between research stages

In this business, if high-quality results or promising results have already been achieved, a mechanism in place ensures seamless transition from "Basic stage R&D" to "Applied stage R&D" or "Development stage R&D", and from "Applied stage R&D" to "Development stage R&D" without having to go through the next public application stage.

(4) Other points of note

When submitting research applications, applicants must determine whether there is an overlap with any other research projects currently underway, including the business of other ministries. Please check the relevant websites for any overlap with other research projects or issues such as competition for funds with projects commissioned by MAFF or other ministries.

- Research projects commissioned by MAFF http://www.affrc.maff.go.jp/docs/project/2018/project_2018.htm
- BRAIN

http://www.naro.affrc.go.jp/laboratory/brain/index.html

- Competitive funding schemes <u>http://www8.cao.go.jp/cstp/compefund/index.html</u>
- For other research funds, please refer to the website of the ministry concerned.

2 Schedule from application to assignment

January 6 (Mon), 2020: Announcement of guidelines for public applications

January 7 (Tue) -10 (Fri) 2020: Research application presentations (Held at 9 venues nationally)

February 4 (Tue), 12:00: Deadline for applications

Late February to early March: Stage 1 Review (Written submission)

Late March: Stage 2 Review (Interview)

Early April: Decision (Announcement of selected research candidates)

From April onwards: Agreements established

(Note) The schedule is subject to change depending on the status of review.

Updates will be regularly published on the BRAIN website.

3 Application requirements

(1) Classification of research institutions

The research institutions that can apply are classified into four categories, I–IV, as follows.

Category I	Prefectures, municipalities, public research and testing institutions, and		
	locally incorporated administrative agencies		
Category II	Universities and inter-university research institutions		
Category III	National R&D agencies, independent administrative corporations, special		
	corporations, and authorized corporations		
Category IV	Private companies, public interest/general corporations, NPOs,		
	cooperatives, and agricultural, forestry and fishery workers		

Applicants who do not fall under any of I-IV should contact our "help desk for this business."

(2) Application requirements

Applicants (i.e., single research institution applications or the representative institution for group applications; the same shall apply hereinafter) must meet the following requirements:

- ① They must be a research institution (*), such as a private company, technical research association, public interest or general corporation, national R&D agency, university, local public entity, NPO, cooperative, or other such organization.
- (*) "Research institutions" are institutions established in Japan that are legal entities and meet the following two conditions.
- (i) They have a research system, research staff, and facilities in place for conducting R&D;
- (ii) They have an administrative system and the capability to handle issues such as those surrounding intellectual property.
- ② Applicants must be qualified under the category of "Provision of Services (Surveys/Research)" and be eligible for competitive participation according to MAFF criteria in FY2019/2020/2022 (common qualification in respect of all ministries and agencies).

Applicants who are not eligible for competitive participation at the time of the submission of their proposal should obtain approval by the time the assignment agreement is established (expected to be around May 2020). Since it may take some time to acquire the qualification, applicants should apply for approval as soon as they submit their proposal. If an applicant is unable to obtain approval for their qualification, their research application will be cancelled. Local public bodies are not required to apply for this qualification.

Please note that those who have a valid qualification for FY2016/2017/2018 will need to renew their approval. See below for more details.

(https://www.chotatujoho.go.jp/va/com/ShikakuTop.html)

- ③ When signing a contract, applicants should be able to sign the assignment agreement offered by BRAIN.
- ④ As a general rule, applicants should carry out their research at R&D centers in Japan. However, this does not apply if otherwise required from the perspective of using special R&D capabilities belonging to foreign institutions, for the utilization of overseas research facilities, or for the acquisition of international standards.

- ⑤ In terms of taking on research projects that are applied for, applicants must have the capabilities and systems in place to plan and draft research and to manage its progress as appropriate. They must also appoint someone to oversee research planning, implementation, and management of results (a "research supervisor") as well as an accounts manager. Specifically, it is necessary to have the following capabilities and systems in place.
- (i) The capability and systems for the smooth implementation of research (including planning and coordination).
- (ii) The capability and systems to establish a research group and conclude a research assignment agreement with BRAIN.
- (iii) The capability and systems to handle administration of issues regarding intellectual property.
- (iv) In terms of dealing with business expenses, an accounting system that can handle segment accounting and appropriate expense management (for instance, the appointment of an accounts manager and the verification of the status of expenses by multiple persons (including those cases where reliable systems are already in place.))
- (v) The capability and systems to smoothly coordinate work, including the dissemination of research results and coordination with joint research institutions.
- ⑥ A research supervisor should be selected from among the applicant's research staff. The research supervisor should meet the following requirements:
- (i) As a general rule, they should be a full-time employee and resident in Japan.
- (ii) They should have sufficient time available as required for conducting the research.
- (iii) They should have a high level of insight required for conducting the research and the capability to coordinate and manage the progress of the research overall.

Candidates unable to engage in long-term research because of business trip commitments or those who are likely to leave the organization in question because of personnel changes, retirement, etc., should avoid becoming research supervisors.

(3) Requirements when multiple research institutions intend to conduct research as a group

The research business is directly assigned to this group, and the assignee group may not reassign all or part of any research project it has applied for to any other research institutions.

Therefore, if multiple research institutions or similar entities form a research group to take on research assignments, the common relationship between the participants must be clarified and the following conditions must be met. Research applications must be made by the representative organization of the research group.

- ① All institutions participating in the group must consent to be organized in a group structure for carrying out their research.
- ② Up until the research group and BRAIN sign the contract, the research group may do any of the following:
- (i) Establish rules for the research project to be implemented (contract).
- (ii) The institutions participating in the research group may sign an agreement on the research project that is scheduled to be jointly conducted (written agreement).

(iii) Sign a joint research contract (research collaboration).

In addition, if there are any significant changes between the time of selection and contracting, such as a change in the institutions that make up the research group, the selection of that group will be cancelled.

Any group selected to undertake a research project should make arrangements to set up a research consortium to ensure the prompt submission of the required documents, such as the rules of establishment of consortium.

- ③ The research group should meet the following requirements in the case of proposal from the FKII R&D platform which gives preferential treatment to select.
- (i) A research consortium should be established through the FKII R&D platform.
- (ii) The research consortium should comprise two or more research institutions (*) on the same platform.
 - * Please refer to 3 (1) Classification of Research Institutions.
 - * The R&D platform must be in place by the time of application.
- ④ Joint research institutions other than the representative institution in the research group must have the following capabilities and systems.
- (i) The capability and systems to handle management and administration when conducting the research.
- (ii) The capability and systems to ensure smooth coordination with research institutions or related organizations.

(4) Promotion of participation of research supporters (coordinators)

The research group is recommended to involve human resources with the ability to act as a bridge between the research management/results and practical application/commercial development of research topics that are implemented in this business (e.g., coordinators and planners, FKII R&D platform producers; hereinafter referred to as "research supporters" (*)). If a research supporter is used, they should coordinate with an external organization for the dissemination of results and practical matters while the research is being conducted. Research supporters should also be asked to participate in research promotion meetings.

A research supporter can be a member of staff from the research group provided that they have the required capability. If there is a clearly defined role for the research supporter at the proposal stage of the research project, information about the research supporter should be included in the relevant part of the application form.

- * The research supporter for the business shall have the following responsibilities:
- Act as a bridge among industry, academia, and government with a wide range of institutions and researchers as well as understand the ideas and potential of research sites and the requirements of private companies.
- Support and collaborate with research supervisors in matters such as the effective allocation and utilization of resources (people, goods, funds, information, time, etc.) necessary for R&D activities.

(5) Requirements for setting up a research management organization

Provided that BRAIN deems it necessary, the research supervisor may appoint an

organization to undertake contract business from BRAIN and accounting duties as a separate entity to the research supervisor's own research group (hereinafter referred to as a "research management organization").

Examples of when a research management organization may be established:

- If a researcher who belongs to a local government entity is appointed as a research supervisor to comply with special features of local government organizations, such as the requirement for a budget to be in place before the research is conducted, or else if it is recognized that there are difficulties in assigning a local government staff member to take charge of accounts.
- If the research supervisor is a staff member of an SME or similar entity, or if there are several SMEs participating in the research group with a limited track record of outsourcing contracts with BRAIN, and it is therefore recognized that there may be a significant delay to the signing of an assignment agreement.

If the institution carrying out the research becomes a research management organization, 3(2) ⑤ shall apply *mutatis mutandis*.

In addition, if an organization that only administers and manages research becomes a research management organization, then the requirement of 3(2) ⑤ "(i) Having the capability and systems for the smooth implementation of research (including planning and coordination)" shall not apply and the following conditions shall be added:

- (vi) It should be an organization located in an area where research can be conducted in the presence of the research supervisor.
- (vii) In principle, it should have a track record of contracts with BRAIN and have the capability and system in place for the smooth implementation of the agreement.

In addition, because the establishment of a research management organization is a special initiative, if this is required, the reason for utilizing a research management organization should be stated in the application form (Form 5). Approval should be obtained from the applicant's accounts manager.

(6) Cooperating organization

The cooperating organizations are third parties which are needed to cooperate to conduct the research topic. Since cooperate organizations are not affiliated with the research group, they are not eligible for using the assignment expenses, holding intellectual property rights, and singly presentation of research results with certain exceptions. Please contact BRAIN for more detail.

(7) Division of roles between research institutions

When a research topic is proposed by a research group, the structure of the research project and the division of roles between the representative institution and the joint research institutions should be clarified to ensure that the research is conducted effectively and efficiently.

(8) Preferential treatment for FKII proposals (common to all research stages)

- ① From the viewpoint of promoting open innovation in FKII, proposals from the FKII R&D platform are given preferential treatment as follows:
- (i) Expansion of the maximum research assignment fee
- (ii) Extension of research period (development research stage only)
- (iii) Additional points of note at the time of selection
- ② Please refer to 3(3) ③ for the conditions required for receiving preferential treatment. For ①(iii), please refer to "3 Selection of Research Topics" for the requirements for each research stage.
- * The proposal from the FKII R&D is required that the platform should be established at the time of application, and all research group members should belong to the same platform.
- * Please refer to the following website for procedures such as admission to the Council of Industry-Academia-Government Collaboration Field for Knowledge Integration and Innovation (FKII). (https://www.knowledge.maff.go.jp/)

4 Information about the application process

(1) How to apply

Applicants are asked to use the R&D management system used by government ministries ("e-Rad"; http://www.e-rad.go.jp (See Attachment 1)). In the case of an application by a research group, the research supervisor should put together the material for the group's research proposal and make the application.

Registration of all the details of participating research institutions and researchers is required to use e-Rad. Registration should be completed at least two weeks in advance as the registration process may take several days. Applicants whose system or business has already registered under the jurisdiction of another other ministry or agency do not need to register again. (Please contact the e-Rad inquiries desk for more information.)

When applying, application information (see note) must be approved for use on e-Rad by the administrative manager of the relevant research institution. Please note that application information will not be submitted to BRAIN unless approval has been given by the administrative representative within the application period. Please refer to the e-Rad portal site for the other procedures required for using e-Rad.

(Note) Application information

In e-Rad, the "Application details file" including basic information entered by the research supervisor, information about the research organization, the status of acceptance, and the items required by BRAIN in the application form are collectively called "Application information." When this "Application information" is converted to PDF format, it is called the "Application information file." When printed out, it is called the "Application proposal."

(2) Application period

The application period for this business is from January 6 (Mon) to 12:00 on February 4 (Fri). The system is available 24 hours a day on weekdays and holidays.

It is available for use on public holidays. However, system operation may be suspended for maintenance/inspection purposes even during the aforementioned period of availability.

Advance notice will be given on the portal site for any planned system outages.

(3) Application documents

When submitting a proposal, please follow these guidelines and fill out the proposal form in Attachment 4. Submissions should be written in Japanese.

Download the application documents (research proposal documents) from the BRAIN website.

(http://www.naro.affrc.go.jp/laboratory/brain/innovation/index.html)

There are application documents (research proposal documents) for each research stage.

All research proposal details are treated as strictly confidential. In addition, committee members who are engaged in screening are bound by strict confidentiality obligations.

In principle, application documents (research proposals) are not used for any purpose other than screening. However, proposals that are accepted may be used by BRAIN for the evaluation of the research topic and follow-up reviews of the results obtained by the research.

Rejected applications (research proposals) will be disposed of by BRAIN. Submitted application documents (research proposals) will not be returned.

(4) Points to note on applications

- ① Applications that come in after the deadline will not be accepted.
- ② Applications other than those defined in the application guidelines are not allowed.
- ③ Submission of application documents by methods other than e-Rad (mail, facsimile, e-mail, etc.) will not be accepted.
- ④ If a submission does not meet the application requirements or if an application form is incomplete, the application will not be reviewed.
- ⑤ The application information file cannot be modified after submission of the application.
- ⑥ All costs incurred for an application shall be borne by the applicant.
- (7) An application is invalid if any of the following circumstances apply.
 - (i) If a proposal is submitted by a non-eligible applicant.
 - (ii) If a proposal is incomplete and the applicant has been asked to correct the proposal, but this is not done by the specified deadline.
 - (iii) If the proposal is deemed to be false or untrue.

5 Expenses payable under the assignment agreement

(1) Expenses incurred under the assignment agreement

Research institutions can record direct and indirect expenses as assignment expenses payable by BRAIN. However, in the case of research management organizations that specialize in managing research operations, indirect expenses cannot be recorded, although general management expenses can be recorded instead.

(1) Direct expenses

The following expenses required for conducting research, summarizing research results and scientific/technical dialogue with the public, and disseminating and promoting research can be recorded as direct expenses.

- (i) Cost of goods (fixtures and equipment, consumables).
- (ii) Staff costs; honorarium payments; gratuities.
- (iii) Travel expenses.

(iv) Other costs (subcontracting, printing and binding, conference costs, communication and transportation costs, utility and water charges, miscellaneous (overhead expenses), consumption tax or similar). In addition, chargeable expenses are limited to those that can be clearly categorized in accounting terms.

For details on expenses, refer to Attachment 6 "List of Classification of Common Expenses for Ministries and Agencies".

② Indirect expenses

All expenses other than those that can be allocated to direct expenses that are indirectly required by research institutions in connection with the implementation of research and any expenses required to support the implementation of research, such as maintenance and operation expenses for administrative or research departments and other related business units. Indirect expenses can be recorded up to a maximum value of 30% of direct expenses.

* For indirect expenses, refer to "Common Guidelines for Indirect Expenses for Competitive Funds" (April 20, 2001 Liaison committees on competitive funds for ministries and agencies concerned;)

(https://www8.cao.go.jp/cstp/compefund/shishin2_kansetsukeihi.pdf)

③ General and administrative expenses

Organizations that specialize in research management cannot record indirect expenses but can record general management expenses instead. Utility costs, transport and communication costs, and the like can be recorded as general administrative expenses. The expenses should be clearly defined or calculated with a reasonable/rational method of apportionment. An amount up to 15% of total direct expenses can be recorded.

* 1: Items that can be accounted for as direct expenses are limited to those that can be clearly defined on an accounting basis as being directly necessary for carrying out the experiment plan and compiling the research results. Particular care should be taken when recording items such as consumables costs, utilities costs, or fuel costs.

Researchers are asked to ensure that the actual work performed in relation to the business is suitably supervised since personnel expenses and wages are calculated in accordance with the number of hours for which research staff are engaged in the assigned business. All research staff should keep and save work records to enable an understanding of the actual work required for the sufficient management of assigned business.

An organization cannot claim personnel expenses if it pays employee staff costs out of national and local government subsidies.

The costs of simple information-gathering trips to academic conferences that are not permitted as travel expenses should be related to research directly. Please keep and save business trip request forms and reports to prove the relationship between the details of a business trip and the planned experiment and research.

* 2: In principle, claiming for member's and overseas travel expenses and travel expenses and accommodation for foreign guest visitors are not allowed except that BRAIN deems they are absolutely needed for research topics. Please contact BRAIN for

more detail.

- * 3: Expenses required for securing the rights to the results of the business, such as patents, can be counted as indirect expenses (expenses for patent applications, requests for review of applications, amendments, judgments, etc.). However, registration and maintenance costs must be borne by the assignee.
- (2) Matching fund method of copayment (applied research stage and development research stage)

In the development research stage, if a private company (or companies) or similar organization is participating in the research group, it is required to pay at least half of any of the assignment expenses paid to the private company by BRAIN out of its own funds (Matching fund method).

In addition, in the applied research stage, if a private company voluntarily pays half or more of the assignment expenses paid by BRAIN, it is entitled to additional points at the time of selection.

(*Private companies or similar organizations are research institutions that fall under Category IV of the Classification of Research Institutions in 3(1).)

However, the matching fund method does not apply to private companies that are not expected to generate new income streams in future from the development of new products and benefits based on the results of the research. (In this case, the proposal should clearly state that the private company is not engaged in the aforementioned type of activities (e.g., it does not hold patent rights))

Expenses that can be recorded as copaid through the matching fund method are as follows.

- ① Direct costs in (1) ① above
- ② Equipment depreciation costs

Applicants must be able to prove that they have previously purchased this equipment with their own funds in the past. It should be possible to verify usage of the equipment through management records or similar documents for the assigned research.

③ Consumables for experiments and research that were held before the assigned research agreement (limited to items containing reagents and materials, not including general-purpose products, such as photocopy paper)

Applicants must be able to prove that they have previously purchased these items with their own funds in the past. It should be possible to check the latest inventory through the stock ledger or similar documents.

* Accounting for ② and ③ is based on the condition that there is an independent asset management function in the organization overseeing the management of assets and cash as appropriate.

In terms of copayment via the matching fund method, research expenses cannot, in principle, be carried forward to the following year. However, when expenses are settled at the end of the year, if own contributions exceed the matching claimed amount, the excess can be included in own funds for the following year subject to BRAIN approval.

(3) Ownership and management of purchased equipment

The assignee's ownership of "purchased equipment, etc." based on the assignment

agreement applies for the period of the research assignment (If a research group implements a research plan, this refers to all institutions that make up the research group; the same shall apply hereinafter). The assignee is responsible for managing this equipment and other items with all due and proper care during the period of the research assignment. In terms of what happens to this equipment after the business assignment is completed, separate notification shall be provided as to whether it should be returned to BRAIN.

In addition, purchased items such as equipment should be registered in the management records and clearly highlighted as equipment purchased for the business.

Any prototypes based on the assignment agreement should be clearly indicated as a product of the business through marking the prototype itself or with a sign.

In addition, if a research institution affiliated with NARO participates in a research group (see 19), a separate budget is established. Therefore, procedures related to the attribution of equipment purchased by the institute have to be done independently from the content of the application guidelines.

6 Establishment of assignment agreement

(1) Establishment of assignment agreement

The selected applicant to whom research is to be assigned shall establish an assignment agreement with BRAIN (see Attachment 3 for details).

If it is deemed to be difficult for an assignment agreement to be fulfilled because of specific changes in the circumstances for the assignee representative institution at any time, from the assignment decision to the start of contracting duties, in certain cases, one of the other members of the research group may be designated as the representative institution for the assignment agreement.

In addition, if conditions are included in the notification of selection, the agreement will not be established if the plan of implementation does not meet these conditions.

(2) Period of assignment

In terms of the period of assignment for the business, it is possible to start the contract on a retrospective basis up to two months before the date when BRAIN accepts the experimental research assignment plan due to be established post-selection (or the date of notification of selection if the submission date of the research plan is less than 2 months from the date of notification). Even before the contracting start date, expenses related to experiments and research that occur after the start date of the period of assignment can be recorded as assignment expenses.

In this case, if there are conditions stated in the notice of selection, we assume that the research project will observe these conditions. Please note that if the project does not reach the contracting stage, the costs will be borne by the contracting institution.

(3) Treatment from the following year onwards

If, based on the evaluation of the operation management committee in accordance with 9 (3), it appears difficult to achieve the research goal and it is deemed appropriate to cancel or reduce the scope of the research, then from the following fiscal year, expenses related to the assignment will be curtailed, the number of participating research institutions will be reduced, or the research topic will be disrupted.

7 Handling of research results

(1) Research result reports

The assignee shall prepare a research report at the end of each fiscal year and on completion of the research. It shall submit this to BRAIN and shall report on how the results are being applied for a period of five years after completion of the research.

In addition, the assignee is required to submit a performance report summarizing the usage of expenses related to the research assignment to BRAIN at the end of each year of the period of the agreement.

(2) Announcement of research results

- ① If an assignee plans to publish any actions or results related to this research topic in a thesis, pamphlet, or any other media (newspaper, television, etc.), they are requested to provide a summary of this to BRAIN in advance. Researchers should take note of business policies and intellectual property issues for any results that are due to be published (If the content of research is announced before its formal submission, the value of originality is forfeited and, with certain exceptions, it will not be possible to acquire intellectual property rights), and are encouraged to publish as widely as possible to academic societies and media in Japan and overseas to present and distribute the results.
- ② Clarification should be given that the activities or the results are related to the research topic.
- ③ BRAIN should be notified in advance of any intention to publish the results of the research, even if this is after the completion of the business.
- ④ After completion of the business, BRAIN will publish the results via research presentations and brochures. The research institution may be asked to help on this. Cooperation is appreciated.
- ⑤ If intellectual property rights for the results are obtained or announced, the research institution is asked to make efforts to ensure that they are published and available for view by third parties to the fullest extent possible.

(3) Management of intellectual property

Based on the "Intellectual Property Policy for Agriculture, Forestry and Fisheries Research" (decision by Agriculture, Forestry and Fisheries Research Council, February 2016), at the start of the research, a basic policy on the handling of intellectual property (hereinafter "intellectual property agreement") within the research group shall be agreed. After consent is established, a report should be made to BRAIN. In addition, a policy should be drawn up to cover items such as the acquisition of research rights, privacy, publication of papers, standardization, and licensing (hereinafter "rights policy"). This should be submitted to BRAIN. At the same time, the research group is expected to adopt a flexible approach so that intellectual property obtained within the research group can be used freely by members of the group so that the results can be quickly commercialized and brought to market.

During the research period, the research group should also engage in management of its intellectual property, including securing rights to research results, privacy, publicity through academic papers, standardization, and adjustment of licenses based on the intellectual property agreement.

The research group should take appropriate action when preparing the intellectual

property agreement and the rights policy to ensure that the results of the research are not leaked overseas.

(4) Handling of intellectual property rights related to research results

If the results of the research give rise to intellectual property rights, BRAIN will not take over these rights from the assignee, in accordance with the Bayh-Dole Act (Japanese version) (Article 19 of the Industrial Technology Enhancement Act), on condition that the assignee commits (through a submission of confirmation) to comply with the following points. However, BRAIN reserves the right to disseminate the results from any copyrighted work submitted to it, or else to allow a third party to use the work for such purpose.

- * Intellectual property rights include patent rights, rights to obtain a patent, utility model rights, utility model registration rights, design registration rights, layout-design exploitation rights, registration of establishment of layout-design exploitation rights, plant breeders' right, varieties registration rights, rights equivalent to these rights in foreign countries, and the right to use copyrights and specified knowledge.
 - ① If the research group develops an invention that is related to the research results, this should be reported to BRAIN prior to filing the application. In addition, if the group has applied for or registered an intellectual property right, this should be reported to BRAIN within the specified period.
 - ② If BRAIN needs the relevant intellectual property rights for the public benefit, a license should be granted to BRAIN free of charge.
 - ③ If an intellectual property right has not been utilized for a considerable period of time, this right must be licensed to a third party at BRAIN's request.
 - ④ Advance approval from BRAIN is required, with certain exceptions, if intellectual property rights are transferred to a third party or if an exclusive license is established.
 - ⑤ Advance approval from BRAIN is required if the intellectual property rights are implemented outside the country by the research group itself or by another licensee.

In the case of research by a group, share of intellectual property rights can be established between some of the institutions that make up the group as required. Please contact BRAIN for more detail.

(5) Handling of research results other than intellectual property rights

The assignee should report all research results, including those that do not concern intellectual property rights, to BRAIN using the research results report in (1).

The assignee should handle all research results that do not concern new intellectual property rights in accordance with existing intellectual property rights.

(6) Management of research results

The assignee is responsible for the following matters.

① In the first year of the research, the group shall discuss its policy of handling research

results as intellectual property and report its conclusions to BRAIN.

In addition, the assignee, based on the policy of rights acquisition set forth in (3), shall implement its intellectual property management policy through research promotion meetings held by the assignee, taking advice from those with knowledge of intellectual property management (Persons in private companies with experience in intellectual property management, university TLOs, intellectual property departments and technology departments in participating institutions).

- ② Research results will be used as appropriate to contribute to the promotion of the agriculture, forestry, and fisheries industries in Japan. BRAIN may encourage the use of research results from this perspective, based on the terms of the assignment agreement.
- ③ Usage of intellectual property rights, research licenses and research tool patents related to research results shall be in accordance with the "Guidelines on research licenses on intellectual property rights arising from R&D funded by government funds to universities, etc." (Council for Science, Technology and Innovation, May 23, 2006) and the "Guidelines for Facilitating the Use of Research Tool Patents in the Life Science Field" (Council for Science, Technology and Innovation, March 1, 2007).
- ④ The attribution of intellectual property rights between the assignee organization and its employees shall be determined internally by the assignee. Not having a set of employee invention rules and regulations in place may give rise to issues and inconveniences in the attribution of intellectual property rights in research assignments. Assignees are therefore asked to establish a set of employee invention rules and regulations as soon as contracting begins.

(7) Retention of research results

Confidential information learned as a result of the business should never be leaked to third parties, regardless of whether the period of the agreement has expired or not. In addition, if confidential information on research results is to be disclosed to a third party (in the case of the research group's research results, this is defined as a person outside the research group) BRAIN must be consulted in advance.

(8) Information on earnings payments

① Report on status of earnings

Each research institution is asked to provide a report on the status of earnings from the research results of the business to BRAIN within five years from the fiscal year following the completion of the research (any earnings generated during the actual period of the business should be reported in the year following the end of the period) and within 90 days from the day following the end of each fiscal year.

② Earnings payments

If, from the reports, the assignee is deemed to have generated a considerable amount of earnings, in principle, an amount equivalent to a part of the earnings shall be paid as follows.

Amount paid = (Earnings - Deductions) x (Total assignment expenses / total

commercialization costs) - Cumulative payments

- * Definition of terms
- Earnings: Cumulative amount of operating profit (Sales manufacturing costs SG&A costs, etc.) calculated for each product and component
- Deductions: Out of the total costs related to commercialization, the total amount of capital expenditure, etc. for the manufacture of products subject to the respective members' own payment responsibilities
- Finalized total amount of assignment expenses: Total amount of assignment expenses necessary for work related to the assignment, as finalized in Article 19 of the assignment agreement
- Total costs related to commercialization: Finalized total amount of assignment expenses and the total amount of capital expenditure, etc. for the manufacture of products
- Cumulative payments: Cumulative payments (when earnings payments are made in the previous year)
 - * If Earnings Deductions is <0, then no earnings payment is required.
 - * The payment shall be within the limit of the finalized total fixed amount of assignment expenses.
- ③ If any research institution generates revenue in connection with the implementation of the business during the year within the period of the agreement (excluding revenue from the results of experimental research specified in the previous section), it should report the status of its revenues to BRAIN within 90 days of the day after the end of the fiscal year in question.

In addition, if it is recognized that a considerable amount of revenue has been generated, in principle, the amount to be paid is calculated as follows.

Payment = Earnings \times Usage proportion of assignment expenses

- * Meaning of terms
- Revenue: Of the amount generated from implementation of the assignment for the year, the usage rate of total assignment expenses not factored into the initial assignment fee calculation
- Usage rate of assignment expenses: Ratio of assignment expenses to total expenses required to generate the revenue
- * The payment at the end of the year in question shall be within the limit of the fixed assignment expenses.

8 Management of research operations

The business shall be managed to ensure that the goal of the business is achieved, with a close relationship maintained with the research supervisor. Management of the business shall be implemented as follows.

① In accordance with the "Research program on development of innovation and creative improvement" (Notification of Secretariat of the Agriculture, Forestry and Fisheries Research Council (AFFRC), No. 811, February 1, 2018; hereinafter referred to as the "development guidelines"), the Secretariat of AFFRC shall establish an operation management committee (hereinafter the "operation management committee") chaired by

a director general of Secretariat of AFFRC, and shall make decisions on matters related to the selection of research topics, and provide advice and guidance on the results of interim evaluations and final evaluations.

- ② At the start of the business, BRAIN assigns a program director (PD), research leader, and external advisor to manage the progress of each experimental research plan and to provide guidance. The assignee is required to conduct research in accordance with the guidance of the PD. Each role is defined as follows:
 - (i) PD (Program Director)

Responsible for managing progress and giving guidance for each research topic in the business.

The PD has the authority to give instructions for reviews of the experimental research plan and to provide encouragement on its implementation; increase or decrease the budget of the research project; reorganize tasks of the experimental research plan. The evaluation by PD are outlined in 9 (2).

(ii) Research leader

Assists the PD in assessing the daily status of research topics, and provides instructions and advice to the research supervisor based on the instructions of the PD.

(iii) External advisor

Attends review meetings held by the representative organization and provides guidance and advice on the implementation of the research topics. The external advisor's travel expenses and gratuities for attending meetings, etc. are paid out of the assignment expenses.

- ③ The PD or the research leader acting under the PD's instruction, or else a manager appointed by BRAIN, reviews the progress of the research and the results of each experimental research plan on a regular basis, and provides guidance and advice to the assignee on the implementation of the research and initiatives for making the research results public and applying these in society. The assignee collaborates with BRAIN to regularly review the progress of the research and its results and should strive to make the research results public and apply these in society.
- (4) BRAIN shall establish an operating committee to facilitate the smooth operation of the business.

The operating committee comprises the PD, the research leader, and staff of the Secretariat of AFFRC.

The operating committee undertakes:

- Guidance and examination of the formulation of the research plan annually and over the whole period of the assignment.
- Reviews of the progress of the research and its results.

Guidance and examination of the formulation of the experimental research plan for the following year is based on the results of the evaluation in 9.

The assignee will cooperate with the operating committee in its review of research progress and its guidance and examination of the formulation of the experimental research plan.

⑤ The assignee is encouraged to take steps towards the prospective application of the results of the research in society, including reviews of the experimental research plan where necessary, and consulting with farmers or other agricultural workers.

9 Evaluation of experimental research results

(1) Evaluation by BRAIN

BRAIN shall carry out an evaluation of the experimental research results every year based on separately created evaluation guidelines. The results of the evaluation are reflected in the "Evaluation by the PD" described in 9(2). The assignee is requested to prepare the required materials that are necessary for the evaluation of the experimental research results.

(2) Evaluation by PD

The PD conducts the second evaluation every year with reference to the evaluation results described in (1).

Note that the evaluation criteria in the separate evaluation guidelines apply *mutatis mutandis* to the PD's evaluation. In addition, the items include instructions for reviewing the experimental research plan for the following year, encouragement on its implementation, an increase or decrease in the budget for the research project, and reorganization of the experimental research plan.

(3) Evaluation by the operation management committee

The operation management committee carries out the final evaluation based on the results of the evaluation by the PD described in (2).

Based on the operation management committee's evaluation results, BRAIN takes these into consideration for the management of the research for the following year.

(4) Follow-up review

Follow-up reviews of the utilization of the research results obtained from the business (status of implementing the research on a practical basis, etc.) using a questionnaire are planned for two and five years after. The assignee is requested to prepare the necessary materials that are required for these follow-up reviews. Applicants are asked to give them their full cooperation.

10 Developing a "Science and technology dialogue with the general public"

With respect to the development of a "Science and technology dialogue with the general public" (basic action guidelines)(*), as established by the Minister of State for Science and Technology Policy and expert members of the Council for Science, Technology and Innovation on June 19, 2010, researchers who receive public research funds of 30 million yen or more per project are required to provide summaries of the content and results of their research activities to the general public in an easy-to-understand manner, and to actively engage in interactive communication about their work.

(*Please refer to https://www8.cao.go.jp/cstp/stsonota/taiwa/taiwa honbun.pdf.)

11 Support for SMEs (Small Business Innovation Research: SBIR)

Support for the business shall be designated as a "special subsidy" under the "Small

Business Innovation Research System (SBIR)". Small and medium-sized enterprises who receive a grant such as this specific subsidy are eligible to receive the following support measures when carrying out business activities that utilize the results of this research (a separate review is required for each use of the system):

- (1) A low-interest loan from the Japan Finance Corporation can be taken out.
 - * Loan of less than 5 years with collateral/guarantor. The interest rate varies depending on the conditions of the loan.
- (2) Fees for requesting a review and fees related to patents are reduced (halved).
- (3) Companies with capital exceeding 300 million yen are eligible for investment from Small and Medium Business Investment Co., Ltd.
- (4) This system strives to make participation in bids possible, including bids made on a national basis, for example, regardless of category of bid or previous track record of bids.
- (5) Business PR material, such as the results of R&D, can be found on the "SBIR Special Site." Refer to the SBIR special site for more detail on Small Business Innovation Research (SBIR). (https://j-net21.smrj.go.jp/develop/sbir/index.html)

12 Dealing with laws and guidelines

In addition to what is described in these guidelines, if research is in violation of relevant laws and guidelines, it may be suspended, the research agreement may be cancelled, or selection of the research may be cancelled.

(1) Security export control

In terms of dealing with technical leaks overseas, if there is an intention to export cargo or technology that is restricted under the Foreign Exchange and Foreign Trade Act (Law No. 228 of 1949), in principle, permission must be obtained from the Minister of Economy, Trade and Industry (METI). These regulations cover the provision of technology as well as the export of goods (Provision of technical information such as blueprints, specifications, manuals, samples, prototypes, etc. in media such as print, email, CD, USB; working knowledge based on technical guidance and skills training; technical support at seminars).

Refer to the Ministry of Economy, Trade and Industry website for more information on security export control.

(http://www.meti.go.jp/policy/anpo/index.html)

(2) Handling of animal experiments

When conducting animal experiments etc. using the animal species specified in the "Basic Guidelines for Implementation of Animal Experiments at Research Organizations by the Ministry of Agriculture, Forestry and Fisheries" ((Notification of Secretariat of AFFRC, June 1, 2006 *), it is necessary to conduct animal experiments appropriately based on the basic guidelines, and the relevant laws and regulations indicated therein.

(*Please refer to http://www.maff.go.jp/j/kokuji_tuti/tuti/t0000775.html .)

(3) Handling research including the collection of biological samples from overseas

Research involving the collection, bringing in, purchase and receipt of biological samples from overseas should be properly conducted in accordance with Guidelines for Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization* (Ministry of Finance, MEXT, Ministry of Health, Labor and Welfare, MAFF, METI, Ministry of the Environment).

(*Please refer to http://www.env.go.jp/press/104061.html.)

13 Eliminating unreasonable overlap and excessive concentration

In terms of eliminating unreasonable overlap (* 1) and excessive concentration (* 2), BRAIN shall follow the "Guidelines for Proper Implementation of Competitive Funds" (September 9, 2005: Agreement between relevant ministries and agencies on competitive funds https://www8.cao.go.jp/cstp/compefund/shishin1_tekiseisikkou.pdf).

(1) Entries in application documents

When applying for this business, applicants are asked to include an update on any other projects in which they are currently participating (including assignments from other ministries and from competitive funding; hereinafter referred to as the "projects.") (name of system, name of experimental research, period of implementation, amount of research budget and effort and commitment allocated (proportion of time available for full-time research)). If it is deemed that the implementation is not in line with the original proposal, selection of the experimental research plan may be cancelled, or the assignment agreement may be terminated, and a refund requested of any assignment expenses that have been paid.

(2) In case of unreasonable overlap or excessive concentration

Based on the proposal and on information from other ministries, if it is deemed that there is unreasonable overlap and excessive concentration, the proposal may be excluded from the review, selection may be cancelled or expenses payable may be reduced.

- * 1 Unreasonable overlap refers to a situation where for the same experimental research plan (referring to the name of the research to which the project is allocated and its content; the same shall apply hereinafter) by the same researcher, multiple projects etc. are allocated unnecessarily and any of the following applies:
- If applications for multiple projects have been submitted at the same time with substantially similar experimental research plans (including cases where there is considerable duplication; the same shall apply hereinafter) and these have been selected multiple times.
- If there are multiple applications for experimental research plans that are substantially similar to projects that are allocated or already selected.
- If there is duplication in the use of research expenses between multiple research plans.
- · Other cases similar to these.
- *2 Excessive concentration means that the total research expenses allocated to the same researcher or research group (hereinafter referred to as "researchers") in the current year exceed the limit that can be used effectively and efficiently, and therefore cannot be used within the period of the research, and where any of the following applies:
- If excessive research expenses are allocated in light of the capabilities of researchers, their research methods, etc.
- If excessive research costs are allocated in comparison with the actual effort and commitment allocated to the experimental research plan (the proportion of time required for conducting the research compared with the researcher's total available work time (%)).
- If unnecessarily expensive research equipment or similar is purchased.

• Other cases similar to these.

14 Measures to prevent unauthorized use of research funds

(1) Initiatives to prevent unauthorized use

Regarding measures to prevent unauthorized use of research funds, the "Guidelines for the Management and Auditing of Public Research Funds at Research Organizations (Implementation standards)" formulated by MAFF (Notification on October 1, 2007 by the Secretariat of AFFRC (2007 Agricultural Association No. 706), the Director General of the Forestry Agency and the Director General of the Fisheries Agency); hereinafter referred to as "Management / Audit Guidelines"*1) and the "Guidelines for Responding to Unauthorized Research Actions" (Notification on April 26, 2007 by BRAIN; hereinafter referred to as "Response Guidelines"*2) apply in accordance with "Initiatives Concerning the Prevention of Unauthorized Use of Public Research Funds (Common Guidelines)" (Council for Science, Technology and Innovation, August 31, 2006).

*1 See http://www.affrc.maff.go.jp/docs/pdf/141218_kanri_kansa_guidline.pdf for more detail.

*2 See

http://www.naro.affrc.go.jp/laboratory/brain/contents/kenkyuchushi_jisshiyoryo_fu seikoui.pdf for more detail.

The assignee must put in place the proper operation and management of research expenses in accordance with the management and audit guidelines.

In addition to requesting a "Pledge on Research Ethics" between selection and establishment of the assignment agreement, BRAIN may request reports on the status of implementation and conduct on-site reviews as required.

(2) Measures against unauthorized use

In this business, or any other businesses of the MAFF, or other ministries, for any researchers who have had to return all or part of the assignment expenses because of unauthorized use or receipt of research funds (hereinafter referred to as "unauthorized use"), and for any researchers who have colluded with them in this, applications or participation in this business will not be allowed for a fixed period after the year following the year in which assignment expenses were returned, as outlined below.

- ① Researchers who use funds for unauthorized purposes (refers to the use of competitive funds for other purposes than those that are authorized, either deliberately or through gross negligence, or usage in violation of the details of the decision to issue the competitive funds, and the conditions attached thereto) and researchers who collaborate with them.
- (i) If it is deemed that a researcher has misappropriated funds for personal gain: 10 years
- (ii) If (i) does not apply
 - a) If the action is deemed to have a material social impact and to have a high level of malicious intent: 5 years
 - b) If a) or c) do not apply: 2-4 years
 - c) If the action is deemed to have a minimal social impact and to have a low level of malicious intent: 1 year

- ② Researchers who receive funds fraudulently (refers to receipt of competitive funds by false or other illegal means) and researchers who collaborate with them: 5 years
- ③ Researchers who are not directly involved in illegal use of funds but who have violated the duty of due care: Half of the restriction period applying to researchers who used funds illegally (Maximum 2 years, minimum 1 year (fractional amounts rounded down)).
- ④ Researchers who have fraudulently used other competitive funds, including funds from other ministries and agencies, researchers who have collaborated with them, and researchers who have violated the duty of due care*: The same period as the restriction period that applies to application and participation in competitive funds.
 - * Example of violation of duty of due care: In principle, where a researcher who can manage research funds on a daily basis and is in a position to conduct research fails to fully understand the appropriate management of competitive funds and, as result of that person's failure to fulfill their responsibility as an administrator, a person supervised by this researcher (i.e. another researcher) commits an act of misconduct.

In cases where all or part of the assignment expenses have been returned because of unauthorized use of research funds, a summary of the unauthorized use concerned will be published and the information will be provided to other national institutions that have jurisdiction over other competitive funds. As a result, applications may also be restricted for other competitive funds.

Where cases of unauthorized use of research funds occur, one reason for their occurrence may be that there are shortfalls in the research and management system of public research funds at the institution to which the researchers involved in the unauthorized use of research funds belong. BRAIN may curtail indirect expenses at a certain rate from the following year onwards.

The restriction period that applies to participation in competitive funds will be decided in accordance with "Responding to Participation in Research Business in Case of Unauthorized Use of Public Research Funds by Research Institutions."

(http://www.affrc.maff.go.jp/docs/pdf/kenkyuhusei_sanka_taiou.pdf)

15 Dealing with fraudulent applications

If fraudulent activity comes to light in a business application, the assignment agreement for the experimental research plan may be cancelled, a refund of the assignment expenses may be requested and compensation may be sought from the assignee.

In addition, with respect to those researchers who have received funds from the business through unfair means and those researchers who collaborate with them, the same measures apply as with unauthorized use in 14 (2).

16 Measures to prevent unauthorized research activities

(1) Initiatives to prevent unauthorized research activities

In terms of unauthorized activities in relation to research conducted in the business, the "Guidelines for dealing with unauthorized activities in research in respect of research funds

under the jurisdiction of the Ministry of Agriculture, Forestry and Fisheries" formulated by MAFF (Notification on December 15, 2006 (Agricultural Association No. 1147) by the Secretariat of AFFRC, the Director General of the Forestry Agency and the Director General of the Fisheries Agency; hereinafter referred to as "Guidelines on unauthorized activities.") and "Response Guidelines" shall apply.

Based on the "Guidelines on unauthorized activities", research institutions should have in place a system to prevent unauthorized activities, such as establishing a research ethics education manager. They should also ensure that those involved in research activities in the research institution have had education on research ethics by the time the agreement is signed, and that a "pledge on research ethics" is submitted at the time of signing the agreement (research institutions that have not conducted research ethics education cannot participate in the business). In addition, the research institution must implement appropriate responses to specific acts of misconduct, such as establishing a contact point for specific claims of misconduct in research activities (e.g. forgery, falsification, and plagiarism of data and survey results in published research results), establishing an investigation committee and carrying out investigations where there are accusations regarding specific misconduct.

BRAIN also has a contact point for inquiries regarding claims of unauthorized research actions and claims are treated in accordance with the "Response Guidelines". In some cases, BRAIN conducts the required investigations in consultation with concerned research institutions.

* 1 For guidelines concerning unauthorized activities, see http://www.affrc.maff.go.jp/docs/pdf/h30_fusei_guideline_20180720.pdf

(2) Measures in the event of specific acts of misconduct

In some cases, institutions that have been allocated funding for research that has been identified as having a specific misconduct issue may be required to return part or all of the research funds allocated to that research.

Also, even if someone is not deemed to have been involved in a specific act of misconduct previously or is not deemed to be involved at present, any author who is deemed to have responsibility for research papers, etc. that have been identified as having a specific misconduct issue, may be subject to restrictions on applications for research funds, etc. under the jurisdiction of the MAFF, including this project, for a certain period of time, as outlined below.

- ① For those who are deemed to have been involved in a specific act of misconduct, depending on its degree of severity, the restriction applies for 2 to 10 years from the year following the year in which the act was identified as specific misconduct.
- ② Even if someone is not deemed to have been involved in a specific act of misconduct, any author who is deemed to have responsibility for research papers, etc. that have been identified as having a specific misconduct issue, the restriction applies for 1 to 3 years from the year following the year in which the act was identified as specific misconduct.

In addition, the name and affiliation of the person who is subject to the above measures, the details of the measures, the contents of the specific misconduct are publicly disclosed, and the information is provided to the government agencies that oversee research funds from the government and independent administrative corporations under the jurisdiction of the

MAFF. Therefore, applications may be restricted in other projects.

17 Suspension of nomination

Applications submitted by research groups that have participated and collaborated with research institutions that have been banned by the MAFF because of collusion during the application period will not be accepted for research in the target field. If a nomination is suspended after the call for applications and before adoption, it will not be accepted.

18 Handling of personal information

To maintain the best interests of the applicant and from the perspective of the "Act on the Protection of Personal Information Held by Administrative Bodies", personal information provided in connection with the application is not used for any purpose other than the selection of the applicant. After the selection decision, all personal information except for that related to the selected institution will be responsibly disposed of by BRAIN.

See http://www.soumu.go.jp/main_sosiki/gyoukan/kanri/kenkyu.htm for more details.

Based on compliance with this act, only the parts necessary for restricting duplicate applications will be supplied to other institutions involved in research funds (including the provision of personal information to an external private company entrusted with data processing and management of data.)

In addition, information on the selected experimental research plan (plan name, research overview, name of research institution, names of researchers, research institution carrying out the research) may be disclosed as information held by administrative bodies.

In addition, the application information related to the selected experimental research plan may be used by BRAIN for providing research support post-selection.

The personal information included in the application information will be provided to the Cabinet Office "Government R&D Database*" via the R&D management system.

*Government R&D database

This database holds comprehensive data gathered by the Council for Science, Technology and Innovation for managers in related ministries to search and analyze various information for appropriate assessment of the results from nationally funded research to develop and formulate comprehensive strategies and to appropriately allocate resources.

19 Expenses when laboratories affiliated with NARO is involved

With respect to research laboratories affiliated with NARO, a separate budget is drawn up when laboratories affiliated with NARO participate as members of a research group. Therefore, as a general rule, assignment expenses are not be paid to laboratories affiliated with NARO.

20 Holding of public information sessions

(1) Date and time; venue

From January 7 (Tuesday) to January 10 (Friday), NARO will hold public information presentations on the business and the application process at nine locations nationwide.

Please refer to Attachment 2 "Presentation schedule" for the location and schedule of these briefing sessions.

(2) Main details of briefing sessions for the business and public applications

- ① Research Program on Development of Innovative Technology
- ② On-farm demonstration trials of Smart Agriculture
- ③ Other

21 Contact us

Inquiries on these matters will be accepted at the following address until the application deadline. BRAIN cannot answer queries about the review process, matters related to other applicants, or matters that are for the sole benefit of specific persons in the application process. For other inquiries, please refer to the questions and answers available on the BRAIN website (inquirer's identities are not disclosed).

O Inquiries about general applications

BRAIN, NARO

Innovation Creation Section, Department of Innovation R&D

Nakatani, Murayama

Address: 16F Parale Mitsui Building

8 Higashidacho, Kawasaki-ku, Kawasaki-shi, Kanagawa 210-0005

(http://www.naro.affrc.go.jp/laboratory/brain/index.html)

TEL: 044-276-8995 FAX: 044-276-9143

E-mail: inobe-web@ml.affrc.go.jp

O Contractual administration

BRAIN, NARO

Research Management Section, Department of Research Management

Responsible: Hirano, Hirose

TEL: 044-276-8583 FAX: 044-276-9143

Other staff may respond directly depending on the details of the inquiry.

We do not designate a staff member to handle each inquiry at the time of the inquiry. Therefore, please clearly state the nature of your query at the start.

○ Information on e-Rad

e-Rad Help Desk

TEL: 0570-066-877

03-6631-0622 (Direct)

Please also check Help Desk Inquiries on The Cross-Ministerial Research and Development Management System (e-Rad) portal site. (https://www.e-rad.go.jp/contact.html)

(Application requirements for basic research stage)

1 Information about the basic research stage

(1) Subject areas of the basic research stage

The focus of the basic research stage is challenging fundamental research to create innovative "seeds" and concepts, based on early stage research including original ideas and basic science carried out by research institutions.

In addition, the research results should lead to applied R&D and should demonstrate a specific vision of practical future application to production in the fields of agriculture, forestry, fisheries and food industries. Therefore, applicants should outline the theme for which they are proposing a solution, the scope of the results they expect to achieve and the goal of the research over the period of its practical application.

(2) Applicant requirements

The applicant should be a single research institution or research group. (There are no special requirements for the composition of a research group).

For FKII proposals, the applicant should be a research consortium consisting of research institutions on the same R&D platform from at least two different categories.*

* See Guidelines for Application (Common items) 3 (1)

(3) Maximum limit of research expenses; research period

Classification of applicants	Maximum limit of research expenses*1	Research period
Non-FKII proposals	JPY30,000,000 per year	Within 3 years
FKII proposals*2	JPY50,000,000 per year	Within 3 years

^{*1} The maximum limit of research expenses includes indirect expense.

Please calculate the amount of research expenses as accurately as possible. Research topics with an excessive total expense may be judged negatively during review.

When a research project is selected, there may be conditions attached such as a review of the research plan, a reduction of research costs, and a shortening of the research period based on the results of the review.

(4) Deadline for conducting public research

From the time of contracting to the end of March 2023.

In addition, if an experimental research plan has not made sufficient progress relative to the original planned goal, or if results are not expected to be satisfactory, or if the contribution to the achievement of the overall research plan of the research items is not clear, applicants may be asked to suspend all or part of the experimental research plan even during the assignment period.

(5) Preferential treatment for FKII proposals*

From the perspective of promoting open innovation through collaboration in the Field for Knowledge Integration and Innovation (FKII), FKII proposals will receive preferential

^{*2} See Guidelines for Application (Common items) 3 (3) ③

treatment. As outlined in (3), the upper limit of assignment expenses payable will be increased and these proposals will gain additional evaluation points for the first review (written submission) and the second review (interview). (This is for the purposes of review only; there is no guarantee of selection.)

Refer to "3 Selection of Research Topics" for details on how points are added. However, overlapping points from proposals from a research network (described in (6)) will not be added.

(6) Preferential treatment for proposals for research networks

The Secretariat of AFFRC regularly shares information, and organizes personnel exchanges, joint research, on common research themes, mainly with research institutions through the "Research Network Establishment Project", by accumulating resources related to information and research in order to develop a strategic technology development system that encourages synergistic and swift development of technology and the application of its results in society. This project promotes the establishment of research networks consisting of companies, universities, research institutions, agricultural, forestry and fishery management bodies.

If a research group set up from a research network selected through the "Research Network Establishment Project" in the "Development and Emergency Deployment of Innovative Technology Project" (2016 supplementary budget) makes an application, the required details about the research network should be filled in on the form.

For proposals submitted by research groups set up from a research network with the consent of the research center at the center of the research network, additional evaluation points are added for the first review (written submission) and second review (interview) (However, all participant organizations in the research group (not including cooperating organizations) must participate in the research network; this is for the purposes of the review only; there is no guarantee of selection.)

Refer to "3 Selection of Research Topics" for details on how points are added. However, overlapping points from FKII proposals (described in (5)) will not be added.

(7) Promotion of research topics

For the review process, the following measures in respect of research proposals for a research plan will gain additional evaluation points in the first review (written submission). (This is for the purposes of the review only; there is no guarantee of selection.)

Refer to "3 Selection of Research Topics" for details on how points are added.

- ① Research topics based on an "R&D/Results Utilization Business Plan" which qualifies or will qualify under the "Act on creation of new businesses by agricultural, forestry and fishermen using local resources and the promotion of the use of local agricultural, forestry and fishery products" (Act No. 67 of 2010; law on "sixth sector" industrialization and local production for local consumption).
- ② Research topics based on an "Agricultural and Commerce Collaboration Business Plan" which qualifies or will qualify under the "Act concerning the promotion of business operations through the collaboration between small and medium-sized businesses and entities engaged in agriculture, forestry, and fisheries" (Act No. 38 of 2008; law on promotion of cooperation for agricultural commerce, etc.).

- ③ Research topics requesting support in a "Regional Revitalization Plan" which qualifies or will qualify under the Regional Revitalization Act (Act No. 24 of 2005).
- 4 Research topics based on a Memorandum of Cooperation or workplan plan related to R&D that is established, or will be established, multilaterally with overseas research institutions for the purpose of contributing to the "Global Food Value Chain Strategy" (formulated on June 6, 2014)
- ⑤ Research topics based on a "Comprehensive Special Area Plan" for regions that qualify for customized and comprehensive local support based on the Comprehensive Special Area Planning Act (Act No. 81 of 2011), concentrating national and regional policy resources in highly feasible areas for pioneering initiatives.
- ⑥ Research topics based on proposals from strategic areas for regional promotion selected by the Ministry of Education, Culture, Sports, Science and Technology, the Ministry of Economy, Trade and Industry, MAFF, and the Ministry of Internal Affairs and Communications, in collaboration with regions that have excellent, independent ideas for creating regional innovation.
- Research topics based on proposals from "Model regional revitalization platforms selected as successful case studies (Model Cases)" in areas confronted by the policy issues of "Creating sustainable cities and regions in a society with rapid aging and a declining population" and "Driving growth and maintaining employment in local industries," based on ministerial meetings related to the implementation of regional revitalization initiatives.

The premise, "Will qualify," means that the plan has been submitted to the relevant ministry and is awaiting approval.

For research projects that fall under any of ① to ⑦ above, applicants are asked to include an extract or attach the relevant part of their plan that corresponds to Form 3 of the application documents (research proposal).

Also, if a project falls under ④, applicants are asked to state to which item(s) of the "Global Food Value Chain Strategy" it will contribute.

(8) Proposals contributing to the export promotion

Research topics leading to the increasing overseas market share for agricultural, forestry and fishery and food products, which respond to the additional resolution of the bill of "Act on promotion of exports of agricultural, forestry and fishery and food products", are eligible for additional first review evaluation points (This is for the purposes of the review only; there is no guarantee of selection). Refer to "3 Selection of Research Topics" for details on how points are added. However, there is no point overlapped among (7), (8), (9) and (10).

(9) Proposals from private companies using research seeds of universities

Research topics that are ready for practical application such as productization and commercialization based on research seeds created by universities or National R&D agencies, which were conducted initiatively by private companies* as the representative institute, are eligible for additional first review evaluation points (This is for the purposes of the review only; there is no guarantee of selection). Refer to "3 Selection of Research Topics" for details on how points are added. However, there is no point overlapped among (7), (8), (9) and (10).

* Private companies or similar organizations are research institutions that fall under Category IV of the Classification of Research Institutions in the Application Guidelines (Common items) 3(1)

(10) Proposals contributing to the promotion of agriculture-welfare collaboration

Research topics on development of technology that aid employment of persons with disabilities in farmers and other private companies, which respond to the vison for promoting agriculture-welfare collaboration, are eligible for additional first review evaluation points (This is for the purposes of the review only; there is no guarantee of selection). Refer to "3 Selection of Research Topics" for details on how points are added. However, there is no point overlapped among (7), (8), (9) and (10).

(11) Proposals from young researchers

In line with the Comprehensive Innovation Strategy (Cabinet decision on June 15, 2018), which aims to encourage the development and support of young researchers, additional evaluation points are awarded for the first review (written submission) and the second review (interview) for those research topics in which all researchers (conducting and supervising research) meet any of the following conditions (This is for the purposes of the reviews only; there is no guarantee of selection).

Refer to "3 Selection of Research Topics" for details on how points are added.

- ① The researcher must be 39 years old or below as of April 1, 2020.
- ② Researchers who are 42 years old or below as of April 1, 2020 who have spent three or more years not engaged in research because of childbirth, childcare, or other social commitments are counted as being 39 or younger (Apply using Form 5-4).

2 Application documents (Research proposal)

Download the application documents (research proposal documents) from the BRAIN website.

(Website: http://www.naro.affrc.go.jp/laboratory/brain/innovation/index.html)

The application documents consist of the following:

Form 1	Preliminary memorandum of experimental re	Required
	search plan	
Form 2-1	Research topic: Summary diagram	Required
Form 2-2	Key research agenda points	Required
Form 2-3	Composition of joint research group	Required
Form 2-4	Overview of FKII R&D platform	Related research topics only
Form 3	Details of research topic	Required
Form 4-1	Information on accounting system	Required
Form 4-2	Status of participating institutions' intellectual	Required
	property initiatives	
Form 5-1	Reasons for utilizing a research management	Related research topics only

	Organization	
Form 5-2	Information on research assistants, etc.	Related research topics only
Form 5-3	Application by a research group formed from a	Related research topics only
	research network start-up	
Form 5-4	Proposals from young researchers	Related research topics only

When preparing the application documents, please read the "Examples and notes" written in blue on the application documents.

3 Selection of research topics

(1) Review criteria

The review criteria for the selection of topics are outlined in Attachment 5.

(2) Review methods and procedures

After the first review (written submission) and second review (interview), a decision is made on which research topic is to be selected.

① First review (written submission)

The first review (written submission) consists of a "science points" assessment by an external specialist and an "administrative points" assessment by MAFF.

Procedure for first review (written submission)

- "Science points" are allocated according to the results of a peer review by external specialists in the research field of the application. They conduct the review of the written submissions based on the review criteria. The external specialists are determined after consideration of the specialty field of research with the interests of all stakeholders taken into account.
- "Administrative points" are allocated based on a review from an administrative standpoint, conducted in accordance with review standards by an administrative staff member.

The mean scores of "scientific" and "administrative" points given by these committee members are added together to make up the total evaluation points for the first review of the research topic.

Scientific points + Administrative points = First Review evaluation points

Methods of preferential treatment for the review (additional points)

- Research topics that fall under matters described in 1 (5) are eligible for additional first review evaluation points (up to 10 points), based on the review criteria in accordance with the status of FKII activities, depending on the R&D platform.
 - * Please refer to the following for those activities required for the R&D platform.
 - Open innovation specified by FKII: (https://www.knowledge.maff.go.jp/uploads/2d79fd62c64760c952dd774ce25133c284 ab7f98.pdf)

Guidelines for producers:

(https://www.knowledge.maff.go.jp/uploads/producer_katudo181116.pdf)

- Research topics that fall under matters described in 1 (6) are eligible for 5 additional first review evaluation points. However, no points are added if there is overlap with points already allocated for FKII research as described in 1 (5).
- Research topics that fall under matters described in 1 (7), (8), (9) or (10) are eligible for 5 additional first review evaluation points. However, there is no point overlapped among 1(7), (8), (9) and (10).
- Research topics that fall under matters described in 1 (11) are eligible for 5 additional first review evaluation points.
- Additional first review evaluation points (up to a maximum of 5 points) may be added for the establishment of an intellectual property management system at participating institutions, based on the review criteria.

Selection of topics for second review (interview)

- The top-ranked research topics after factoring in any additional first review evaluation points are chosen for the second review (interview).
- Research topics that are eligible for the second review and the review schedule for these
 will be notified directly to the supervisor of the research projects concerned and will be
 posted on the BRAIN website.

② Second review (interview)

For the second review (interview), a review committee comprising external experts and administrative staff interview research supervisors on their research topic to review "scientific points" and "administrative points".

Details of the review committee are not made public.

Procedure for second review (interview)

- "Scientific points" are allocated based on a review, conducted in line with the review criteria, by external experts from a wide range of fields such as agriculture, forestry and fisheries, food, medical and engineering.
- o "Administrative points" are allocated based on a review from an administrative standpoint, conducted in line with the review criteria, by administrative staff members on the review committee.

The mean scores of "scientific" and "administrative" points given by the review committee are added together to make up the total evaluation points for the second review of the research topic.

Scientific points + Administrative points = Second review evaluation points

Methods of preferential treatment for the review (additional points)

- Research topics that fall under matters described in 1 (5) are eligible for additional second review evaluation points (up to 10 points), based on the review criteria in accordance with the status of FKII activities depending on R&D platform.
- Research topics that fall under matters described in 1 (6) are eligible for 3 additional second review evaluation points. However, no points are added if there is overlap with points allocated for FKII research as described in 1 (5).

• Research topics that fall under matters described in 1 (11) are eligible for 5 additional second review evaluation points.

Selection of candidate applicant research topics

The total score obtained by adding additional points to second review evaluation points represents the "final evaluation points total" for the research topic. Applicant research topics are selected in descending order by ranking of final evaluation points.

Second review evaluation points + additional points = final evaluation points total

4 Decision of selected research topic

The operation management committee at MAFF decides which applicant research topics are selected for each research stage and notifies BRAIN accordingly. The number of selected research topics depends on the FY2020 budget for this business.

In some instances, the financial status of the research institution may be taken into account when selecting a research topic. There may also be certain conditions attached such as a review of the research plan, a reduction in research costs, and a shortening of the research period based on the results of the review.

(3) Publication and notification of selections

The selection results from the first and second reviews will be published promptly on the BRAIN website using the ID number given by e-Rad at the time of application. If a proposal is rejected, the reason for this rejection will be announced at a later date.

In addition, please note that inquiries about details of the review will not be answered for reasons including the need to protect applicants' trade secrets and information related to intellectual property.

In addition, if a research proposal is selected for assignment, the applicant should promptly prepare and submit the required documents such as the experimental research plan and the regulations for the establishment of a research consortium. Based on the submitted materials, a decision is taken on whether to establish a contracting agreement.

In addition to the aforementioned points, certain conditions for selection and points to consider for conducting research may be outlined to the assignee as required. These conditions and considerations should be reflected in the experimental research plan. If these conditions are not met, and if it is determined that all or part of the considerations cannot be fulfilled, the assignment shall not be made.

(Application requirements for applied research stage)

1 Information about the applied research stage

(1) Subject areas of the applied research stage

The applied research stage relates to R&D that is ready for practical application based on research "seeds" and ideas created through basic research using funds from MAFF and other research funds.

In addition, the research results should lead to R&D that is ready for practical application and should demonstrate a specific vision for future practical application in production, in the fields of agriculture, forestry and fisheries and food industries. Therefore, applicants should outline the topic for which they are proposing a solution, the scope of the results they expect to achieve and the goal of the research over the period of its practical application.

(2) Applicant requirements

The applicant should be a research group. (There are no special requirements for the composition of a research group)

FKII proposals* should be from a research consortium consisting of research institutions from at least two different categories that use the same R & D platform.

* See Classification of Research Institutions in the Application Guidelines (Common items) 3 (1)

(3) Maximum limit of research expenses; research period

Classification of applicants	Maximum limit of research expenses*1	Research period
Non-FKII proposals	JPY30,000,000 per year	Less than 3 years
FKII proposals*2	JPY50,000,000 per year	Less than 3 years

^{*1} The maximum limit of research expenses includes indirect expenses, but not include the matching fund method of copayment

Applicants should calculate the amount of research expenses as accurately as possible. An excessive total expense for a research project may count as a negative for the purposes of the review.

When a research project is selected, there may be conditions attached based on the results of the review, including a review of the research plan, a reduction in research costs, and/or a shortening of the research period.

(4) Deadline for conducting public research

From the time the agreement is established to the end of March 2023.

In addition, if an experimental research plan has not made sufficient progress relative to the original planned goal, or if results are not expected to be satisfactory, or if the contribution to the achievement of the overall research plan of the research items is not clear, applicants may be asked to suspend all or part of the experimental research plan even during the assignment period.

^{*2} See Application Guidelines (Common items) 3 (3) ③

(5) Matching fund method

① Application of the matching fund method

The matching fund method can be applied in order to promote commercialization by private companies and to encourage investment, with private companies participating in research that leads to productization and commercialization (At least half of the assignment expenses paid by BRAIN to private companies are borne by the private company itself as a copayment). If the matching fund method is applied, the research proposal will gain additional evaluation points in the first review (written submission). (This is for the purposes of the review only; there is no guarantee of selection). For details of the matching fund method, please refer to 5 (2) in the Application Guidelines.

Also, refer to "3 Selection of Research Topics" for details on how to add evaluation points.

(* Private companies or similar organizations are research institutions that fall under Category IV of the Classification of Research Institutions in the Application Guidelines (Common items) 3(1).)

- 2) Points of note on the matching fund method
- (i) The representative body is responsible for coordinating to ensure that there is no shortfall in terms of its members' own funds, and the members of the research group must agree to cooperate.
- (ii) The conditions for applying matching funds are established at the end of the fiscal year.
- (iii) If copaid expenses for the year fall short at the settlement date at the end of the fiscal year and the conditions for matching funds have not been met based on the scope of expenses for this project, copaid expenses should be transferred to top up assignment expenses paid until the matching fund conditions are properly met. Any assignment expenses that are overpaid following this transfer should be refunded early in the following fiscal year.
- (iv) At the settlement date at the end of the fiscal year, if the actual copaid amount exceeds the amount stipulated under the matching fund conditions, the excess amount paid can be deducted from the copayable amount for the following year, subject to BRAIN approval.
- (v) For a private company where the matching fund method is not applied, if it becomes clear that the company has profited through using the research results to develop new products and benefits, either during the course of or after the research, overpaid assignment expenses should be refunded going back to the start of the research in order to meet the matching fund conditions.
- (vi) Although copayment is not a public source of finance, since it forms the basis of the conditions of payment for public funds for this national project, these payments should be treated and managed in the same way as assignment expenses for public funds.

(6) Preferential treatment for FKII proposals

From the perspective of promoting open innovation through collaboration in the Field for Knowledge Integration and Innovation (FKII), FKII proposals will receive preferential treatment. As outlined in (3), the upper limit of assignment expenses will be increased and these proposals will gain additional evaluation points for the first review (written submission) and the second review (interview).

Refer to "3 Selection of Research Topics" for details on how additional points are calculated. However, overlapping points from proposals from research networks (described in (7)) will not be added.

(7) Preferential treatment for proposals from research networks

By accumulating resources related to information and research with the aim of creating a strategic technology development system that encourages synergistic and swift development of technology and the application of its results in society, the Secretariat of AFFRC regularly shares information, and organizes personnel exchanges and joint research on common research themes, mainly with research institutions, through the "Research Network Establishment Project". This promotes the establishment of research networks consisting of companies, universities, research institutions, agricultural, forestry and fishery management bodies.

For applications by a research group created from a research network selected through the "Research Network Establishment Project" under the "Development and Emergency Deployment of Innovative Technology Project" (2016 supplementary budget), the required details about the research network should be filled in on the form.

For proposals submitted by research groups set up from a research network with the consent of the principal research center in the network, additional evaluation points are added for the first review (written submission) and second review (interview). (However, all participants in the research group (not including cooperating organizations) must participate in the research network; this is for the purposes of the review only; there is no guarantee of selection.)

Refer to "3 Selection of Research Topics" for details on how additional points are calculated.

However, overlapping points from FKII proposals (described in (6)) will not be added.

(8) Promotion of research topics

For the review process, the following measures in proposals for research plans will gain additional evaluation points in the first review (written submission). (This is for the purposes of the review only; there is no guarantee of selection).

Refer to "3 Selection of Research Topics" for details on how points are added.

However, there is no point overlapped among 1(7), (8), (9) and (10).

- ① Research topics based on an "R&D/Results Utilization Business Plan" which qualify or will qualify under the "Act on creation of new businesses by agricultural, forestry and fishermen using local resources and the promotion of the use of local agricultural, forestry and fishery products" (Act No. 67 of 2010; law on "sixth sector" industrialization and local production for local consumption)
- ② Research topics based on an "Agricultural and Commercial Collaboration Business Plan" which qualify or will qualify under the "Act concerning the promotion of business operations through the collaboration between small and medium-sized businesses and entities engaged in agriculture, forestry, and fisheries" (Act No. 38 of 2008; law on promotion of cooperation for agricultural commerce, etc.)
- ③ Research topics requesting support for a "Regional Revitalization Plan" which qualify or will qualify under the Regional Revitalization Act (Act No. 24 of 2005)
- 4 Research topics based on a MOC or work plan related to R&D that is established or will

be established multilaterally or with overseas research institutions for the purpose of contributing to the "Global Food Value Chain Strategy" (formulated on June 6, 2014)

- ⑤ Research topics based on a "Comprehensive Special Area Plan" for regions that qualify for customized and comprehensive local support based on the Comprehensive Special Area Planning Act (Act No. 81 of 2011), concentrating national and regional policy resources in highly feasible areas for pioneering initiatives.
- ⑥ Research topics based on proposals from strategic areas for regional promotion selected by the Ministry of Education, Culture, Sports, Science and Technology, the Ministry of Economy, Trade and Industry, the Ministry of Agriculture, Forestry and Fisheries, and the Ministry of Internal Affairs and Communications, in collaboration with regions that have excellent, independent ideas for creating regional innovation.
- Research topics based on proposals from "Model regional revitalization platforms selected as successful case studies (Model Cases)" in areas confronted by the policy issues of "Creating sustainable cities and regions in a society with rapid aging and a declining population" and "Driving growth and maintaining employment in local industries," based on ministerial meetings related to the implementation of regional revitalization initiatives.

The premise, "Will qualify," means that the plan has been submitted to the relevant ministry and is awaiting approval.

For research projects that fall under any of ① to ⑦ above, applicants are asked to include an extract or attach the relevant part of their plan that corresponds to Form 3 of the application documents (research proposal).

Also, if a project falls under ④, applicants are asked to state to which item(s) of the "Global Food Value Chain Strategy" it will contribute.

(9) Proposals contributing to the export promotion

Research topics leading to the increasing overseas market share for agricultural, forestry and fishery and food products, which respond to the additional resolution of the bill of "Act on promotion of exports of agricultural, forestry and fishery and food products", are eligible for additional first review evaluation points (This is for the purposes of the review only; there is no guarantee of selection). Refer to "3 Selection of Research Topics" for details on how points are added. However, there is no point overlapped among (8), (9), (10) and (11).

(10) Proposals from private companies using research seeds of universities

Research topics that are ready for practical application such as productization and commercialization based on research seeds created by universities or National R&D agencies, which were conducted initiatively by private companies* as the representative institute, are eligible for additional first review evaluation points (This is for the purposes of the review only; there is no guarantee of selection). Refer to "3 Selection of Research Topics" for details on how points are added. However, there is no point overlapped among (8), (9), (10) and (11).

* Private companies or similar organizations are research institutions that fall under Category IV of the Classification of Research Institutions in the Application Guidelines (Common items) 3(1)

(11) Proposals contributing to the promotion of agriculture-welfare collaboration

Research topics on development of technology that aid employment of persons with disabilities in farmers and other private companies, which respond to the vison for promoting agriculture-welfare collaboration, are eligible for additional first review evaluation points (This is for the purposes of the review only; there is no guarantee of selection). Refer to "3 Selection of Research Topics" for details on how points are added. However, there is no point overlapped among (8), (9), (10) and (11).

(12) Proposals from young researchers

Based on the Comprehensive Innovation Strategy (Cabinet decision on June 15, 2018), which aims to develop and support young researchers, additional evaluation points are awarded for the first review (written submission) and the second review (interview) for those research topics in which all researchers (conducting and supervising research) meet any of the following conditions (This is for the purposes of the reviews only; there is no guarantee of selection).

Refer to "3 Selection of Research Topics" for details on how points are added.

- ① The researcher must be 39 years old or below as of April 1, 2020.
- ② Researchers who are 42 years old or below as of April 1, 2020 who have spent three or more years not engaged in research because of childbirth, childcare, or other social commitments count as being 39 or younger (Apply using Form 5-4).

2 Application documents (Research proposal)

Download the application documents (research proposal documents) from the BRAIN website.

(Website: http://www.naro.affrc.go.jp/laboratory/brain/innovation/index.html)

The application documents consist of the following.

Form 1	Preliminary memorandum of experimental research plan	Required
Form 2-1	Research topic: Summary diagram	Required
Form 2-2	Key research agenda points	Required
Form 2-3	Composition of joint research group	Required
Form 2-4	Overview of FKII R&D platform	Related research topics only
Form 3	Details of research topic	Required
Form 4-1	Information on accounting system	Required
Form 4-2	Status of participating institutions' intellectual property initiatives	Required
Form 5-1	Reasons for utilizing a research management	Related research topics only

	Organization	
Form 5-2	Information on research assistants, etc.	Related research topics only
Form 5-3	Application by a research group formed from a	Related research topics only
	research network start-up	
Form 5-4	Proposals from young researchers	Related research topics only

When preparing the application documents, please read the "Examples and notes" written in blue on the application documents.

3 Selection of research topics

(1) Review criteria

The review criteria for the selection of topics are outlined in Attachment 5.

(2) Examination methods and procedures

After the first review (written submission) and second review (interview), a decision will be made on which research topics are to be selected.

① First review (written submission)

The first review (written submission) consists of a "science points" assessment by an external specialist and an "administrative points" assessment by MAFF.

- "Science points" are allocated based on a peer review by external specialists in the research field of the application. They conduct the review of the written submissions based on the review criteria. The external specialists are determined with the interests of all stakeholders taken into account after consideration of the specialty field of research.
- "Administrative points" are allocated based on a review from an administrative standpoint, conducted in accordance with review standards by an administrative staff member.

The mean scores of "scientific" and "administrative" points given by these committee members are added together to make up the total evaluation points for the first review of the research topic.

Scientific points + Administrative points = First Review evaluation points

Methods of preferential treatment for the review (additional points)

- Research topics that fall under matters described in 1 (5) are eligible for 5 additional first review evaluation points.
- Research topics that fall under matters described in 1 (6) are eligible for additional first review evaluation points (up to 10 points), based on the review criteria, in accordance with the status of FKII activities and depending on the R&D platform.
 - * Please refer to the following for those activities required for the R&D platform.
 - Open innovation specified by FKII: (https://www.knowledge.maff.go.jp/uploads/2d79fd62c64760c952dd774ce25133c284

ab7f98.pdf)

Guidelines for producers:

(https://www.knowledge.maff.go.jp/uploads/producer_katudo181116.pdf)

- Research topics that fall under matters described in 1 (7) are eligible for 5 additional first review evaluation points. However, no points are added if there is overlap with points already allocated for FKII research as described in 1 (6).
- Research topics that fall under matters described in 1 (8), (9), (10) or (11) are eligible for 5 additional first review evaluation points. However, there is no point overlapped among (8), (9), (10) and (11).
- Research topics that fall under matters described in 1 (12) are eligible for 5 additional first review evaluation points.
- Additional first review evaluation points (up to a maximum of 5 points) may be added for the establishment of an intellectual property management system at participating institutions, based on the review criteria.

Selection of topics for second review (interview)

- The top-ranked research topics, once any additional first review evaluation points have been taken into account, are chosen for the second review (interview).
- Research topics that are eligible for the second review and the review schedule for these are notified directly to the supervisor of the research projects concerned and posted on the BRAIN website.

② Second review (interview)

For the second review (interview), a review committee comprised of external experts and administrative staff interview research supervisors on their research topic to review "scientific points" and "administrative points".

Details of the review committee are not made public.

Procedure for second review (interview)

- o "Scientific points" are allocated based on a review conducted in line with the review standards by external experts from a wide range of fields such as agriculture, forestry and fisheries, food, medical and engineering.
- "Administrative points" are allocated based on a review from an administrative standpoint, conducted in line with the review standards by administrative staff members on the review committee.

The mean scores of "scientific" and "administrative" points given by the review committee are added together to make up the total evaluation points for the second review of the research topic.

Scientific points + Administrative points = Second review evaluation points

Methods of preferential treatment for the review (additional points)

• Research topics that fall under matters described in 1 (6) are eligible for additional second review evaluation points (up to 10 points if the matching fund method is applied and up to 5 points where it is not applied), based on the review criteria in accordance with the status of FKII activities depending on the R&D platform.

- Research topics that fall under matters described in 1 (7) are eligible for 3 additional second review evaluation points. However, no points are added if there is overlap with points already allocated for FKII research as described in 1 (6).
- Research topics that fall under matters described in 1 (12) are eligible for 5 additional second review evaluation points.

Selection of candidate applicant research topics

The total score obtained by adding additional points to second review evaluation points represents the "final evaluation points total" for the research topic. Applicant research topics are selected in descending order by ranking of final evaluation points.

Second review evaluation points + additional points = Final evaluation points

4 Decision of selected research topic

The operation management committee at MAFF decides which applicant research projects are selected for each research stage and notifies BRAIN accordingly. The number of selected research topics depends on the FY2020 budget for this business.

In some instances, the financial status of the research institution may be taken into account when selecting the research topic. There may also be certain conditions attached, such as a review of the research plan, a reduction in research costs, and a shortening of the research period based on the results of the review.

(3) Publication and notification of selections

The selection results from the first and second reviews are published promptly on the BRAIN website using the ID number given by e-Rad at the time of application. If a proposal is rejected, the reason for this rejection will be announced at a later date.

In addition, please note that inquiries about details of the review will not be answered for reasons such as protecting applicants' trade secrets and information related to intellectual property.

In addition, if a research proposal is selected for assignment, the applicant should promptly prepare and submit the required documents such as the R&D plan and the regulations for the establishment of a research consortium. Based on the submitted materials, a decision is taken on whether to establish a contracting agreement.

In addition to the aforementioned points, certain conditions for selection and points to consider for conducting research may be outlined to the assignee as required. These conditions and considerations should be reflected in the R&D plan. If these conditions are not met, and if it is determined that all or part of the considerations cannot be fulfilled, the assignment shall not be made.

(Application requirements for development research stage)

1 Information about the development research stage

(1) Subject areas of the development research stage

The development research stage refers to R&D based on research "seeds" and ideas created in applied research that are ready for practical application as solutions for production issues in agriculture, forestry and fisheries and food industries. As a prerequisite, an appropriate knowledge of basic and applied research is required, as well as an accumulation of technical "seeds" and ideas based on this research.

The production technology that results from this research should be clearly explained for rollout and distribution to production sites. Therefore, applicants should outline the theme for which they are proposing a solution and the scope of the results they expect to achieve up to the completion of the research.

(2) Applicant requirements

The applicant should be a research group consisting of research institutions in two or more categories (*).

For FKII proposals*, this should be from a research consortium consisting of research institutions on the same R & D platform from at least two different categories.

* See Classification of Research Institutions in the Application Guidelines (Common items) 3 (1)

(3) Maximum limit of research expenses; research period

Classification of applicants		Maximum limit of research expenses*1	Research period
Non-FKII proposals (Regardless of whether the matching fund method is applied)		JPY30,000,000 per year	Less than 3 years (Breeding research less than 5 years)
FK	II proposals (* ²)		
	① If the matching fund method is applied	JPY150,000,000 per year	Less than 5 years
	② If the matching fund method does not apply (*3)	JPY50,000,000 per year	Less than 3 years (Breeding*4 research less than 5 years)

^{* &}lt;sup>1</sup> The maximum limit of research expenses includes indirect expenses, but not include the matching fund method of copayment

^{* &}lt;sup>2</sup> See Application Guidelines (Common items) 3 (3) ③

^{*} 3 Refer to the proviso in (5) ①

^{* &}lt;sup>4</sup> The breeding research described here is defined as research topics aiming to develop innovate cultivars after completion of the business, which meet actual user's requirements and have potentials to reduce the production cost significantly and

increase overseas market share.

Applicants should calculate the amount of research expenses as accurately as possible. Research topics with an excessive expense total may be perceived negatively for review purposes.

When a research project is selected, there may be conditions attached such as a review of the research plan, a reduction in research costs, and a shortening of the research period based on the results of the review.

(4) Deadline for conducting public research

From the conclusion of the contract, where the matching fund method is applied for research consortiums formed from an FKII R&D platform for breeding research, the deadline is end-March 2025. Otherwise, the deadline is end-March 2023.

In addition, if an experimental research plan has not made sufficient progress relative to the original planned goal, or if results are not expected to be satisfactory, or if the contribution to the achievement of the overall research plan of the research items is not clear, applicants may be asked to suspend all or part of the experimental research plan even during the assignment period.

(5) Matching fund method

① Application of matching fund method

If a private company (or companies) or similar organization is participating in the research group, it is required to pay at least half of any assignment expenses paid to the private company out of its own funds (Matching fund conditions).

Private companies which should apply for the matching fund method are expected to generate new income streams in future through the development of new products and benefits using the results of the research (securing rights such as patent rights, concealment of know-how, etc.). (Private companies or similar organizations are research institutions that fall under Category IV of the Classification of Research Institutions in the Application Guidelines (Common items) 3(1))

To promote commercialization by private companies and to encourage investment with private companies participating in research that leads to productization and commercialization, additional evaluation points are given in the first review (written submission) depending on the amount of expenditure borne by the company. (This is for the purposes of the review only; there is no guarantee of selection). For details of the matching fund method, please refer to 5 (2) in the Application Guidelines.

Refer to "3 Selection of Research Topics" for details on how points are added.

However, the matching fund method does not apply for private companies that are not expected to generate new income streams in future through the development of new products and benefits based on the results of the research. (In this case, the proposal should clearly state that the private company is not engaged in the aforementioned type of activities (e.g. it does not hold patent rights, etc.))

(*.)

C Examples of private companies where the matching fund method does not apply

- Private companies that solely verify research results developed by other institutions in the research group
 - Example 1: Food processing manufacturers who use equipment that is the subject of research on the development of food processing equipment.
 - Example 2: Agricultural production companies using a system that is the subject of research on the cultivation of agricultural products and support systems for production using ICT.
- Private companies who do not intend to generate a profit from utilizing research results

Example: Companies participating in research for the purpose of social contribution

- 2 Points of note on the matching fund method
- (i) The representative body is responsible for coordinating to ensure that there is no shortage in terms of its members' own funds, and the members of the research group must agree to cooperate.
- (ii) The conditions for applying matching funds are established at the end of the fiscal year.
- (iii) If copaid expenses for the year fall short at the settlement date at the end of the fiscal year and the conditions for matching funds have not been met, based on the scope of expenses for this project, copaid expenses should be transferred to top up assignment expenses paid until the matching fund conditions are met. Any assignment expenses that are overpaid following this transfer should be refunded early in the following fiscal year.
- (iv) At the settlement date at the end of the fiscal year, if the actual copaid amount exceeds the amount stipulated under the matching fund conditions, the excess amount paid can be deducted from the copayable amount for the following year, subject to BRAIN approval.
- (v) For a private company where the matching fund method is not applied, if it becomes clear that the company has profited through using the research results to develop new products and benefits, either during the course of or after the research, overpaid assignment expenses should be refunded going back to the start of the research in order to meet the matching fund conditions.
- (vi) Although copayment is not a public source of finance, since it forms the basis of the conditions of payment for public funds for this project, as a national project, these payments should be treated and managed in the same way as assignment expenses for public funds.

(6) Preferential treatment for FKII proposals

From the perspective of promoting open innovation through collaboration in the Field for Knowledge Integration and Innovation (FKII), FKII proposals will receive preferential treatment. As outlined in (3), the upper limit of assignment expenses will be increased and these proposals will gain additional evaluation points for the first review (written submission) and the second review (interview).

Refer to "3 Selection of Research Topics" for details on how points are added. However, overlapping points from proposals from a research network (described in (7)) will not be added.

(7) Preferential treatment for proposals for research networks

By accumulating resources related to information and research to develop a strategic technology development system to encourage synergistic and swift development of technology and the application of its results in society, the Secretariat of AFFRC regularly shares information, and organizes personnel exchanges and joint research on common research themes, mainly with research institutions, through the "Research Network Establishment Project". This promotes the establishment of research networks consisting of companies, universities, research institutions, agricultural, forestry and fishery management bodies.

For applications by research groups set up from research networks selected through the "Research Network Establishment Project" under the "Development and Emergency Deployment of Innovative Technology Project" (2016 supplementary budget), the required details about the research network should be filled in on the form.

For proposals submitted by research groups set up from a research network with the consent of the principal research center in the network, additional evaluation points are added for the first review (written submission) and second review (interview) (However, all participant organizations in the research group (not including cooperating organizations) must participate in the research network; this is for the purposes of the review only; there is no guarantee of selection.)

Refer to "3 Selection of Research Topics" for details on how points are added. However, overlapping points from FKII proposals (described in (6)) will not be added.

(8) Research projects on technology that contributes to the development of "smart agriculture"

Additional evaluation points are added for the first review (written submission) for research on technology that aids improvement of agricultural productivity, product quality and rationalization of distribution, utilizing advanced technologies such as robots, AI, IoT, drones and sensor technologies for the realization of smart agriculture (which counts as a "Priority matter requiring rapid resolution for the implementation of administrative measures"). This is for the purposes of the review only; there is no guarantee of selection.

In addition, additional evaluation points are also added for the first review (written submission) for research contributing to the development of smart agriculture especially targeted for hilly and mountainous areas, and targeted for open field vegetable and fruit tree productions. This is for the purposes of the review only; there is no guarantee of selection.

Refer to "3 Selection of Research Topics" for details on how points are added.

However, there is no point overlapped among (8), (10), (11), (12) and (13).

For proposals on this topic, the proposal should include a clear explanation of the advanced technology to be researched and developed and the objective of the proposal to make it clear that the research addresses this specific issue.

- (9) Requirements for implementation of research results in society (Development research stage)
 - ① Requirement for evaluation and improvement of development technology derived from research results.

Development technology derived from research results must be evaluated and improved, based on utilization by users such as farmers or agricultural workers.

Examples of implementation methods are as follows.

- Farmers participate in the research consortium and carry out verification tests on cultivation techniques, etc.
- Farmers, consumers and actual users attend briefing meetings on the research and offer opinions and evaluations of the development technology. This feedback is then reflected in the research plan for the following year.
- Conduct surveys on consumers and actual users for marketing purposes and enhance the development technology based on the results of the surveys
- ② Creation of an exit strategy for the research

In order to ensure consistent and swift application of the results in society, it is necessary to create an exit strategy for the research results at the time of application, and to clarify the division of roles between commercialization and practical use in the research consortium. The exit strategy should be described in the application form and will be considered in the selection review.

(10) Promotion of research topics

For the review process, the following measures in respect of research proposals for a research plan will gain additional evaluation points in the first review (written submission). (This is for the purposes of the review only; there is no guarantee of selection.)

Refer to "3 Selection of Research Topics" for details on how points are added. However, there is no point overlapped among (8), (11), (12) and (13)

- ① Research topics based on an "R&D/Results Utilization Business Plan" which qualifies or will qualify under the "Act on creation of new businesses by agricultural, forestry and fishermen using local resources and the promotion of the use of local agricultural, forestry and fishery products" (Act No. 67 of 2010; law on "sixth sector" industrialization and local production for local consumption)
- ② Research topics based on an "Agricultural and Commerce Collaboration Business Plan" which qualifies or will qualify under the "Act concerning the promotion of business operations through the collaboration between small and medium-sized businesses and entities engaged in agriculture, forestry, and fisheries" (Act No. 38 of 2008; law on promotion of cooperation for agricultural commerce, etc.)
- ③ Research topics requesting support in a "Regional Revitalization Plan" which qualifies or will qualify under the Regional Revitalization Act (Act No. 24 of 2005)
- ④ Research projects based on a MOC or workplan plan related to R&D that is or is established or will be established multilaterally or with overseas research institutions for the purpose of contributing to the "Global Food Value Chain Strategy" (formulated on June 6, 2014)
- ⑤ Research projects based on a "Comprehensive Special Area Plan" for regions that qualify for customized and comprehensive local support based on the Comprehensive Special Area Planning Act (Act No. 81 of 2011), concentrating national and regional policy resources in highly feasible areas for pioneering initiatives.
- ⑥ Research topics based on proposals from strategic areas for regional promotion selected by the Ministry of Education, Culture, Sports, Science and Technology, the Ministry of Economy, Trade and Industry, the Ministry of Agriculture, Forestry and Fisheries, and the Ministry of Internal Affairs and Communications, in collaboration with regions that have excellent, independent ideas for creating regional innovation.

Research topics based on proposals from "Model regional revitalization platforms selected as successful case studies (Model Cases)" in areas confronted by the policy issues of "Creating sustainable cities and regions in a society with rapid aging and a declining population" and "Driving growth and maintaining employment in local industries," based on ministerial meetings related to the implementation of regional revitalization initiatives.

The premise, "Will qualify," means that the plan has been submitted to the relevant ministry and is awaiting approval.

For research projects that fall under any of ① to ⑦ above, applicants are asked to extract or attach the relevant part of their plan that corresponds to Form 3 of the application documents (research proposal).

If a project falls under ④, applicants are asked to state to which item(s) of the "Global Food Value Chain Strategy" it will contribute.

(11) Proposals contributing to the export promotion

Research topics leading to the increasing overseas market share for agricultural, forestry and fishery and food products, which respond to the additional resolution of the bill of "Act on promotion of exports of agricultural, forestry and fishery and food products", are eligible for additional first review evaluation points (This is for the purposes of the review only; there is no guarantee of selection). Refer to "3 Selection of Research Topics" for details on how points are added. However, there is no point overlapped among (7), (8), (9) and (10).

(12) Proposals from private companies using research seeds of universities

Research topics that are ready for practical application such as productization and commercialization based on research seeds created by universities or National R&D agencies, which were conducted initiatively by private companies* as the representative institute, are eligible for additional first review evaluation points (This is for the purposes of the review only; there is no guarantee of selection). Refer to "3 Selection of Research Topics" for details on how points are added. However, there is no point overlapped among (7), (8), (9) and (10).

* Private companies or similar organizations are research institutions that fall under Category IV of the Classification of Research Institutions in the Application Guidelines (Common items) 3(1)

(13) Proposals contributing to the promotion of agriculture-welfare collaboration

Research topics on development of technology that aid employment of persons with disabilities in farmers and other private companies, which respond to the vison for promoting agriculture-welfare collaboration, are eligible for additional first review evaluation points (This is for the purposes of the review only; there is no guarantee of selection). Refer to "3 Selection of Research Topics" for details on how points are added. However, there is no point overlapped among (7), (8), (9) and (10).

(14) Proposals from young researchers

Based on the Comprehensive Innovation Strategy (Cabinet decision on June 15, 2018), which places an emphasis on the development and support of young researchers, additional

evaluation points are awarded for the first review (written submission) and the second review (interview) for those research topics in which all researchers (conducting and supervising research) meet any of the following conditions (This is for the purposes of the reviews only; there is no guarantee of selection).

Refer to "3 Selection of Research Topics" for details on how points are added.

- ① The applicant must be 39 years old or below as of April 1, 2020.
- ② Researchers who are 42 years old or below as of April 1, 2020 who have spent three or more years not engaged in research because of childbirth, childcare, or other social commitments count as being 39 or younger (Apply using Form 5-4).

2 Application documents (Research proposal)

Download the application documents (research proposal documents) from the BRAIN website.

(Website: http://www.naro.affrc.go.jp/laboratory/brain/innovation/index.html)

The application documents consist of the following.

Form 1	Preliminary memorandum of experimental research plan	Required
Form 2-1	Research topic: Summary diagram	Required
Form 2-2	Key research agenda points	Required
Form 2-3	Composition of joint research group	Required
Form 2-4	Overview of FKII R&D platform	Related research topics only
Form 3	Details of research topic	Required
Form 4-1	Information on accounting system	Required
Form 4-2	Status of participating institutions' intellectual property initiatives	Required
Form 5-1	Reasons for utilizing a research management Organization	Related research topics only
Form 5-2	Information on research assistants, etc.	Related research topics only
Form 5-3	Application by a research group formed from a research network start-up	Related research topics only
Form 5-4	Proposals from young researchers	Related research topics only

When preparing the application documents, please read the "Examples and notes" written in blue on the application documents.

3 Selection of research topics

(1) Review criteria

The review criteria for the selection of topics are outlined in Attachment 5.

(2) Examination methods and procedures

After the first review (written submission) and second review (interview), a decision is made on which research topic is to be selected.

① First review (written submission)

The first review (written submission) comprises a "science points" assessment by an external specialize and an "administrative points" assessment by MAFF.

- "Science points" are allocated based on a peer review by external specialists in the research field of the application. They conduct the review of the written submissions based on the review criteria. The external specialists are determined after consideration of the specialty field of research with the interests of all stakeholders taken into account.
- o "Administrative points" are allocated based on a review conducted in accordance with review standards by an administrative staff member from an administrative standpoint.

The mean scores of "scientific" and "administrative" points given by these committee members are added together to make up the total evaluation points for the first review of the research topic.

Scientific points + Administrative points = First review evaluation points

Methods of preferential treatment for the review (additional points)

- Research topics that fall under matters described in 1 (5) are eligible for 5 additional first review evaluation points.
- Research topics that fall under matters described in 1 (6) are eligible for additional first review evaluation points (up to 10 points), based on the review criteria in accordance with the status of FKII activities depending on the R&D platform.
 - * Please refer to the following for those activities required for the R&D platform.
 - · Open innovation specified by FKII

(https://www.knowledge.maff.go.jp/uploads/2d79fd62c64760c952dd774ce25133c284 ab7f98.pdf)

Guidelines for producers

(https://www.knowledge.maff.go.jp/uploads/producer_katudo181116.pdf)

- Research topics that fall under matters described in 1 (7) are eligible for 5 additional first review evaluation points. However, no points are added if there is overlap with points allocated for FKII research as described in 1 (6).
- o In research topics that fall under matters described in 1 (8), research topics related to "smart agriculture" are basically eligible for 3 additional first review evaluation points, and research topics related to "smart agriculture especially targeted for hilly and mountainous areas and for open field vegetable and fruit tree productions are eligible for more 2 additional first review evaluation points (total 5 points). However, there is no point overlapped among 1(8), (10), (11), (12) and (13).
- Research topics that fall under matters described in 1 (10), (11), (12) or (13) are eligible for 5 additional first review evaluation points. However, there is no point overlapped among 1(8), (10), (11), (12) and (13).

- Research topics that fall under matters described in 1 (14) are eligible for 5 additional first review evaluation points.
- Additional first review evaluation points (up to a maximum of 5 points) may be added for the establishment of the intellectual property management system at participating institutions, based on the review criteria.

Selection of topics for second review (interview)

- The top-ranked research topics after taking account of additional first review evaluation points are chosen for the second review (interview).
- Research topics that are eligible for the second review and the review schedule for these are notified directly to the supervisor of the research projects concerned and posted on the BRAIN and MAFF websites.

② Second review (interview)

For the second review (interview), a review committee comprising external experts and administrative staff interview research supervisors on their research topic to review "scientific points" and "administrative points".

Details of the review committee are not made public.

Procedure for second review (interview)

- "Scientific points" are allocated based on a review conducted according to the review standards by external experts from a wide range of fields such as agriculture, forestry and fisheries, food, medical and engineering.
- o "Administrative points" are allocated based on a review conducted according to the review standards by administrative staff members on the review committee from an administrative standpoint.

The mean scores of "scientific" and "administrative" points given by these committee members are added together to make up the total evaluation points for the Second Review of the research topic.

Scientific points + Administrative points = Second review evaluation points

Methods of preferential treatment for the review (additional points)

- Research topics that fall under matters described in 1 (6) are eligible for additional second review evaluation points (up to 10 points if the matching fund method is applied and up to 5 points where it is not applied), based on the review criteria in accordance with the status of FKII activities depending on the R&D platform.
- Research topics that fall under matters described in 1 (7) are eligible for 3 additional second review evaluation points. However, no points are added if there is overlap with points already allocated for FKII research as described in 1 (6).
- Research topics that fall under matters described in 1 (14) are eligible for 5 additional first review evaluation points.

3 Selection of candidate applicant research topics

The total score obtained by adding additional points to second review evaluation points represents the "final evaluation point total" for the research topic. Applicant research topics are selected in descending order by ranking of final evaluation points.

Second review evaluation points + additional points = Final evaluation points

4 Decision of selected research topic

The operation management committee at MAFF decides which applicant research projects are selected for each research stage and notifies BRAIN accordingly. The number of selected research topics depends on the FY2020 budget for this business.

In some instances, the financial status of the research institution may be taken into account when selecting the research project. There may also be certain conditions attached such as a review of the research plan, a reduction in research costs, and a shortening of the research period based on the results of the review.

(3) Publication and notification of selections

The selection results from the first and second reviews are published promptly on the BRAIN website using the ID number given by e-Rad at the time of application. If a proposal is rejected, the reason for this rejection will be announced at a later date.

In addition, please note that inquiries about details of the review will not be answered for reasons such as protecting applicants' trade secrets and information related to intellectual property.

In addition, if a research proposal is selected for assignment, the applicant should promptly prepare and submit the required documents such as the experimental research plan and the regulations for the establishment of a research consortium. Based on the submitted materials, a decision is taken on whether to establish a contracting agreement.

In addition to the aforementioned points, certain conditions for selection and points to consider for conducting research may be outlined to the assignee as required. These conditions and considerations should be reflected specific in the experimental research plan. If these conditions are not met, and if it is determined that all or part of the considerations cannot be fulfilled, the assignment shall not be made.