Moonshot Research and Development Program
for Agriculture, Forestry and Fisheries

Call for Project Managers

Application Guidelines

Application Period

- March 3, 2023 (Friday) – by noon of May 9, 2023 (Tuesday) [Japan Standard Time]

Notes of importance for e-Rad registration

- Applications must be submitted via the Cross-Ministerial R&D Management System (i.e., "e-Rad"). No submission will be accepted by post, in person, nor email.
- E-Rad registration is required prior to the use of e-Rad for all the researchers involved, to obtain researcher IDs.
- Applicants are STRONGLY SUGGESTED to initiate the e-Rad registration process at least two weeks before the PM application as the process may take time.

March 2023

Bio-oriented Technology Research Advancement Institution
(BRAIN)

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Note: In this document, “FY…” stands for the fiscal year of Japan, indicating April to March. For example, FY2024 indicates one year period from April 1, 2024, to March 31, 2025.

Moonshot Research and Development Program for Agriculture, Forestry and Fisheries Call for Project Managers

Application Guidelines

Bio-oriented Technology Research Advancement Institution (BRAIN) has been supporting the "Moonshot Research and Development Program for Agriculture, Forestry and Fisheries" (Program).

1. Program and Project Overview

1) Background and Purpose

The Council for Science, Technology and Innovation (CSTI), aiming to create disruptive innovation in Japan, decided to promote ambitious research and development, i.e. Moonshot R&D Program, based on ambitious ideas that go far beyond conventional technologies.

Accordingly, BRAIN established a fund for the area of agriculture, forestry and fisheries under the Program, and has been promoting the R&D Conception elaborated by the MAFF.

2) Program Description

The Moonshot R&D Program for Agriculture, Forestry and Fisheries is to accelerate R&D combining various ideas based on the R&D Conception elaborated by MAFF to achieve the Moonshot Goal 5 (MS Goal 5) out of the nine Goals developed by CSTI.

Described below are the MS Goal 5 and the R&D Conception of the Program:

i) MS Goal 5

The MS Goal 5 is "Creation of industry that enables sustainable global food supply by exploiting unused biological resources by 2050". See Annex 1 for details.

ii) Research and Development Conception

The Research and Development Conception provides the direction of the program to achieve the MS Goal 5. See Annex 2 for details.

3) Call

i) R&D Target

The targets for the projects of the call is "development of the solutions for eliminating food loss/waste and for achieving both healthy life and sustainable food consumption by 2500". See Annex 1 for details.

ii) Topics for the Call

The call is to seek proposals to address food loss reduction, aiming to adopt multiple project managers (PMs) over the respective fields of humanitarian/social science and natural sciences. It is required that one or more private companies with a proactive business concept must or are definitely expected to participate in the research group.

The following topics are examples of specific theme under the call while proposals with other topics can be taken if food loss reduction issues will be fully addressed:

- Research to comprehensively grasp where and how the food loss emerges in macro perspectives,

- Research to establish a social system to lead substantial food loss reduction with full awareness of the issue,
- Research to creatively develop tasty food from "lost/wasted food",
- Development of innovative technologies for processed food production from "lost/wasted food",
- Development of innovative technologies for long-term food preservation and storage

Note: For this call, the term "food loss" (reduction target) indicates the food and agricultural products that are produced but not consumed. They broadly cover not only the food wasted throughout the food value chain but also the crops unharvested/ left on the field.

4) Project Period

The project period for the proposed project is in general from FY2023 to FY2024 (between April 2023, and Mach 2025) while it may be extended to FY2029 at the longest based on the evaluation results in FY2024. In addition, the project period may be changed (accelerated, decelerated) or terminated in the middle of the planned period, based on the annual evaluations with external experts.

5) Project Budget

The call is to seek projects with the total budget of 650 million yen over two fiscal years (FY 2023 and FY 2024) while there is no allocation cap per project.

2. Project Promotion Framework

1) Roles of BRAIN

BRAIN is responsible for the implementation of the R&D Conception to achieve the MS Goal 5, and plays the following roles as its main functions:

i) Appointment of a person qualified as the PD. It may also appoint a sub-PD (or sub-PDs) to assist the PD if necessary.

ii) Recruitment (call arrangement and adoption) of PMs to achieve the MS Goal 5 in consultation with the PD.

iii) Determination of the management plan ("Portfolio") developed by the PD, summarizing the structure, combination, of projects and the resource allocation.

iv) Instruction provision to PMs to develop project plans under the direction of the PD.

v) Collection and analysis of information on national and global R&D trends and issues related to the social acceptance of R&D outcomes, incorporating views of the external experts including those in the humanitarian/social sciences.

vi) Acquisition of information from the PD and PMs in order to submit annual reports to the Strategy Promotion Council established by the Cabinet Office. The information includes the project progress, the adequacy of the financial resource allocation and its review, and the proper roles of public and private sectors, according to the progress.

vii) Service provision to facilitate intellectual property management, international standardization, advocacy, and technology trend survey, among others, in order to support appropriate management by the PD and PMs. BRAIN will also help to:

- obtain expert supports as necessary to identify promising projects or such seeds at early stages in effectively setting concrete steps for social implementation of R&D

outcomes, and,

- facilitate interactive dialogues with the public on science and technology, in which the PD and PMs provide a clear explanation on their research activities to gain the proper understanding and support.

viii) Support provision for inviting relevant experts to share and discuss cross-cutting issues such as ethical, legal, and social issues (ELSI) as well as mathematical science, which are important to accelerate R&D and for social implementation. For example, BRAIN may organize view exchange sessions for the PD with the relevant experts, and/or establish a mechanism to obtain expert supports for such issues when needed by the PD and PMs.

ix) Management of the data catalog (consisting of the metadata submitted by the PMs and other researchers) through the research data infrastructure system in order to promote advanced data management.

2) Roles of Project Director (PD)

BRAIN has appointed Dr. Kazuhiro Chiba, President of Tokyo University of Agriculture and Technology, as the PD, aiming to achieve the MS Goal 5 and the R&D Conception.

PD mainly plays the roles as follows:

i) Strategic development of the Portfolio as well as ambitious and systematic promotion of R&D to achieve the MS Goal 5 and the R&D Conception.

* Portfolios should be developed with proper consideration of the innovative and creative nature of R&D as well as economic and social consequences.

ii) Supervision over the PMs for their projects, properly monitoring the R&D progress based on the Portfolio, reviewing the Portfolio according to the progress, and providing consistent guidance.

iii) Portfolio review based on evaluations and advice from external experts.

3) Roles of Project Managers (PMs)

The PMs are authorized to implement the projects.

The PMs are responsible for the projects of his/her own respectively, by directing the group, incorporating various emerging knowledge and ideas, and engaging themselves in ambitious research attempts taking risks of failure properly.

Listed below are the principal roles of PMs:

i) Formulation and strategic implementation of project plans under the PD's supervision (e.g., developing project goals, R&D descriptions, the implementation plan, the implementation framework as well as allocation plans of the research funds among the research institutes involved in the projects). The PMs should be able to make agile and flexible changes of direction including modification of the projects and/or possible "spin-off" of partial R&D outcomes.

ii) Appropriate management of intellectual property and other information obtained; active and strategic promotion of international cooperation.

iii) Objective evaluation of research to identify the R&D elements possibly attracting investment (private funds), for which active search should be conducted for potential funds and/or business partners. PMs also have the responsibility to conduct interactive dialogues with the public on science and technology to provide a clear explanation on their projects.

iv) Formulation of a data management plan (DMP), with which the scope of data

management is defined, and the metadata is collected from researchers to submit to BRAIN. The research data infrastructure system will be used to store, share and publish the data as necessary.

* For more information on 1) to 3) above, see Annex 3: Guidelines for the Operation and Evaluation of the Moonshot R&D Program.

4) Roles of Board of Trustees

BRAIN has established Board of Trustees, which consists of PD and external experts and has the following roles:

i) Deliberation of PM selection

ii) Evaluation of program operation

iii) Evaluation of project operation

iv) Evaluation of adequacy of project evaluation process

v) Deliberation of other issues for proper implementation of MS Goal 5.

The evaluations, as in ii), iii) and iv) above, will be conducted annually based on the defined criteria and reported to SPC and MAFF by BRAIN.

5) Roles of Operational Management Committee (OMC)

MAFF has established an OMC to oversee the BRAIN's operation of the Program implementation in alignment with its purpose.

The roles of the OMC are as follows:

i) Selection of PD and PM candidates, nomination of members and agenda item arrangement of Board of Trustees and of other bodies as necessary

ii) Approval of the selection criteria and final selection of PD and PMs

iii) Approval of Portfolios

iv) Approval of the criteria for the project evaluation

v) Provision of guidance and supervision based on evaluation results

3. Application Requirements

1) Research Implementation Framework

An applicant must propose a project to be carried out in a research group consisting of multiple research institutes ("Research Group"). The institute with which the applicant is (or will be affiliated) will represent the research group and be referred to as "Representative Organization" in this document.

The research implementation framework (i.e., group arrangement) could be modified in the project refinement process after the adoption before finalizing the contract.

2) Requirements for PMs

Applicants are required to be capable of fulfilling all the "Roles of PMs" described in the 2-3) above. Applicants can be of any nationality while they must be based in Japan after being appointed as a PM. When adopted as a PM, BRAIN may inform of the issues which are considered necessary to be revised in the selection/examination process. The revision should be conducted in the refinement process.

3) Requirements for Representative Organizations

Applications must be made under the names of applicants and the Representative Organizations.

The representative organizations must meet the following requirements:

i) To be a research institute (*) with legal personality, such as a private company, national R&D corporation, university, local government, among others.

(*) A research institute refers to an institution established in Japan and meets the following two conditions:

a. To own a research system, researchers, equipment and other necessities to conduct R&D, and,

b. To have a capacity and system to manage tasks related to intellectual property and other administrative tasks as necessary.

ii) To be eligible under the cross-ministerial tender qualification for FY2021, FY2022 and FY2023.

Those who are not eligible can submit a proposal while they must be qualified before signing the contract and would lose tender results otherwise.

See the link below for application and procurement information (only in Japanese):

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

iii) To agree to the contract presented by BRAIN.

iv) To have legal personality in Japan and be based in Japan.

v) To have (or will have with a firm certainty) an appropriate system to manage project accounting, such as capability to address separate accounting, an appointed accounting manager, double-checking by more than one person.

vi) To have the ability and system established to properly conduct and facilitate operations such as dissemination of research outcomes and coordination with the joint research institutes in the Research Group.

4) Requirements for Research Groups

Research Groups must meet the following requirements:

i) All institutions participating in a Research Group must agree to organize the Research Group and conduct joint research.

ii) The Research Groups must select and specify the type of regulation/agreement out of the three (a.-c.) below, before finalizing the contract with BRAIN:

a. “Regulation type”: Development of regulations regarding the research project to be implemented.

b. “Agreement type”: Mutual agreement between the participants in the Research Group on the research project to be carried out.

c. “Joint research type”: Establishment of a joint research agreement.

The decision of PM adoption might be revoked if a significant change is made such as a substantial reformulation in the group composition (i.e., participating research institutes). Also, the Research Groups may be reformulated in refining the Project (i.e., Portfolio formulation). In addition, early preparation is strongly encouraged to establish a consortium including the necessary documentation.

iii) The Research Groups are required to the followings (See 11-1) “Intellectual Property

Management" for details.):

a) comply with the "Policy on Intellectual Property in Agriculture, Forestry and Fisheries Research" (determined by the Agriculture, Forestry and Fisheries Research Council in February 2016 and updated in December 2022),

b) develop an agreement on the basic treatment of intellectual property ("Intellectual Property Rights Agreement") in accordance with the commission agreement at the initial stage of research, and,

c) develop a policy on intellectual property rights to specify the policy regarding the establishment of an Intellectual Property Steering Committee, acquisition of rights to research outcomes, their confidentiality, disclosure of these through publication of academic papers and adjustments regarding decisions on standardization and licensing.

iv) All the research institutes in the Research Group must be financially stable. An institution(s) may have to leave the Research Group when the financial situation is regarded extremely unstable.

v) Each institute in the Research Group must submit a letter of pledge against misconduct. See Japanese version of the Application Guidelines for details on misconduct avoidance

5) Requirements for Joint Research Institutes

Joint research institutes in the Research Group must meet the following requirements:

i) To have the ability and system established to properly manage/operate the relevant R&D activities.

ii) To have the ability and system established to properly coordinate with relevant organizations.

iii) To assign a chief manager and an accounting manager responsible for the activities of the institute in the project.

6) Collaborators

Collaborators are third parties whose cooperation is needed for the implementation of the R&D activities. Not being a member of the Research Group, the Collaborators have certain limitations as follows:

i) It is required to establish a collaboration agreement with the representative organization and/or joint research institutes to clarify the roles, rights and obligations, in order to be a collaborator.

ii) The research funds may not be allocated directly to collaborators. Necessary financial transfer can be made by representative organizations or joint research institutes in the form of subcontract payment, travel expenses, honorarium or other appropriate form.

iii) Collaborators cannot own patents related to the research outcomes. However, the collaborators can share the intellectual property rights with representative organizations and/or joint research institutes only in cases where:

a) the representative organization or a joint research institute should specify the reason for adding a collaborator as a joint patent applicant, which must be approved by BRAIN,

b) a joint patent application agreement is signed between the collaborator and the representative organization or a joint research institute, stipulating the protection of confidentiality and the compliance with the treatment of intellectual property rights prescribed in the contract, and,

c) the agreement above in b) allows the joint patent application within the Research Group.

iv) Collaborators are not bound to neither the provisions of the contract between BRAIN and Research Groups nor confidentiality obligations under the contract. However, noting that collaborators have opportunities to know the purpose, details and outcomes of the research from various occasions, e.g., the review sessions of the Research Group, it is necessary to ensure the confidentiality in a proper manner (such as Intellectual Property Rights Agreements or other type of agreement established in the Research Group).

4. Claimable Expenses under the Contract

1) Expenses

Expenses that can be claimed under commission expenses (research expenses) are as follows:

i) Direct expense:

Direct expenses are those directly required for carrying out research, compiling research outcomes, conducting public dialogues on science and technology and supporting dissemination, as follows:

a. Purchase of goods (equipment and supplies)

b. Personnel expenses and honorarium

c. Travel expenses

d. Other expenses (subcontracting, printing and publishing, conferences, communication and transportation, utilities, overheads, and consumption tax equivalents)

These should be classifiable in accounting terms as directly necessary expenses. See Annex 11 “xxx” (only in Japanese) for details.

ii) Indirect expense (*)

Expenses other than those that should be classified as direct expenses and indirectly required to support R&D activities, such as maintenance and operating costs for facilities of various departments including administrative sections. The indirect cost can be claimed up to the predetermined rate (generally, 30%) of the total direct expenses (the rate may vary with each institute).

*1 See the “Common Guidelines for Execution of Indirect Expenses of Competitive Funds” (Agreements on Competitive Funding at the Liaison Conference of Relevant Ministries and Agencies on April 20, 2001, and updated on October 1, 2921, available only in Japanese)

(https://www8.cao.go.jp/cstp/compefund/shishin1_tekiseisikkou.pdf).

*2 Expenses that can be claimed as direct expenses are limited to those classifiable in accounting terms as directly necessary under the contract. The costs of supplies, utilities, fuel should be considered carefully whether they are for the project under the contract. Since personnel expenses and wages should be calculated based on the number of hours directly engaged in the research under the contract, the record keeping is essential on the hours worked by all the staff engaged to properly conduct effort management. As for travel expenses, also the record keeping is essential for the requests and reports of the missions to demonstrate their relevance to the research under the contract.

*3 The equipment costs under the “purchase of goods” are limited to the items used in the

research under the contract, with an estimated usable period of at least one year and an acquisition price of 100,000 yen or more. Alternatives should be considered (as compared to the purchase) and the least expensive one should be pursued, e.g., arrangement of rental use, financing lease or operating lease. The lease fee can be claimed only for the project period (in equal monthly installments) and the remaining payments should be made otherwise (not by the research fund under the contract).

*4 Expenses necessary for the right acquisition of the research outcomes, such as expenses for patent applications, can be claimed as direct expenses while the registration and maintenance costs will be borne otherwise (not by the research fund under the contract).

2) Attribution and Management of Purchased Goods

The ownership is associated with the Research Group, for the goods such as equipment purchased by all the institutions in the group under the commission agreement. The Research Group must manage the purchased goods with the care of a good manager during the project period. After the project period, the goods may be used for research purposes for a certain period of time with application and approval.

The purchased goods such as equipment must be registered in a management record, with a sticker affixed to indicate "the purchase under the Program".

5. Timeline: from Call to Contract

March 3, 2023 (Friday)	Open of the Call
March 23, 2023 (Thursday)	Explanatory session (only in Japanese)
May 9, 2023, 12 am (noon), Japan standard time	Deadline (closing date) of the of application
Mid to late May 2023	Document screening and interviews
June 2023	Adoption and announcement
July 2023	Refinement
August 2023	Contract arrangement

(Note) The timeline above is subject to change without notice.

6. Application Procedures

1) Registration of e-Rad

The application for the call can be submitted only through the Cross-Ministerial R&D Management System ("e-Rad"); https://www.e-rad.go.jp/en/ (see Annex 4 for details).

2) Application Period

The application period for the call is from March 3, 2023 (Friday) to May 9, 2023 (Tuesday) no later than 12 am, noon (Japan standard time). The e-Rad system is available for 24 hours both on weekdays and holidays while the system may be suspended due to maintenance and for other reasons. Such suspension may be notified in advance on the e-Rad website above.

3) Application Forms

The application forms, available at the BRAIN website as follows (Annex 5: Project Plan Proposal), are to fill out in accordance with the Guidelines (this document) to prepare a

proposal.

https://www.naro.affrc.go.jp/laboratory/brain/moon_shot/public_call_for_project_manager/

Strict confidentiality will be ensured to the submitted information, which also applies to the committee members involved in the screening process.

In principle, the submitted information will not be used for any purpose other than screening for the call while the approved proposals may be referred to in the project evaluation and the follow-up surveys by BRAIN. The submissions of the unsuccessful applications will be discarded at BRAIN.

4) Notes of Importance

i) Late submissions will not be accepted for any reasons.

ii) Submissions will be accepted only with the forms specified in the Application Guidelines (this document).

iii) Submissions will be accepted only by e-Rad use but not by other ways (e.g., by post, facsimile, or e-mail).

iv) Applications will not be considered if they do not meet the application requirements, or if they are submitted with incomplete application forms.

v) Application information files cannot be modified after the application period.

vi) Applicants are responsible for all the costs associated with the application.

vii) Applications will be invalid if the proposal is:

a. submitted by a person who is not eligible to apply

b. flawed (the applicants may receive the revision request and they should make proper modification by the specified deadlines)

c. found to be false

5) Explanatory Session

The explanatory session (in Japanese) will be organized for the call.

7. Conflicts of Interest

1) PD, sub-PD(s) and PMs

Since the PD is responsible for the selection of PMs as well as the formulation and management of Portfolios, the PD is not allowed to participate in the program as a PM nor researcher in the group.

However, in order not to hinder possible best mix of Japan's top-level R&D capabilities and diverse knowledge, appropriate decisions will be made based on the necessity, reasonability and adequacy of the relationship when the PMs are found under any of the following categories:

i) those who belong to the same department (faculty, research area and other relevant unit) as the PD in the same private company, university, national R&D corporation, or other research institutes.

ii) those who have kinship ties with the PD.

iii) those who are in a direct competitive relationship with the PD.

iv) those who are in a close collaborative relationship with the PD.

v) those who are in a close mentoring relationship or direct employment relationship with the PD.

vi) any other cases where the relationship is considered inappropriate by BRAIN to make a fair judgment.

2) PMs and chiefs of institutes

Regarding possible conflicts of interest between PMs and chiefs of institutes ("PIs"), like the previous case, appropriate decisions will be made based on the necessity, reasonability and adequacy of the relationship when the PIs are found under any of the following categories:

i) those who have kinship ties

ii) those who are in a close mentoring relationship or direct employment relationship with the PM

iii) any other cases where the relationship is considered inappropriate by BRAIN to make a fair judgment.

In determining whether or not there is a conflict of interest, applicants may be requested to provide additional information.

8. Selection of PMs

1) Selection Method

PMs will be selected by the Board of Trustees based on the Screening Criteria as in 2) below. Applicants will be invited for the interviews, for which the time and date will be coordinated, and requested to prepare the presentation materials. Applicants may be requested to submit additional materials when necessary.

The screening process will not be made public, and no inquiries will be answered regarding the screening progress.

The names and affiliations of the members of the Board of Trustees will be posted on the BRAIN website after the PM selection. The details of the screening will not be made public to protect personal information and intellectual property information included in the proposals.

2) Screening Criteria

Proposals will be screened based on the following criteria:

a. The applicant has a broad personal network of relevant national and international researchers. and specialized knowledge for the promotion of cutting-edge R&D.

b. The applicant has management and leadership capabilities to build an optimal R&D system and review the system flexibly according to the progress made.

c. The proposed goals and content of the Project ("Proposed Content") are based on ambitious ideas, are more challenging and innovative than the conventional ones, and are expected to have a significant impact on the industry and society in the future.

d. The Proposed Content clearly provides a reasonable success scenario from technological perspectives and in terms of social acceptance including the roles shared between the public and private sectors to achieve the goal set for 2050.

e. The Proposed Content brings together both national and global top-level R&D capabilities, knowledge and ideas.

f. The Proposed Content is innovative and challenging and will directly contribute to food loss reduction. In addition, the Research Group will include private company member(s) having a proactive business concept.

g. The Proposed Content will take up "collective intelligence", which include the fields of humanitarian/social science to address ELSIs.

h. Each participating institute has a policy on the management of intellectual property and a management system with departments and officials in charge.

i. The budget plan for Project is adequately developed without excess or deficiency.

j. The Proposed Content has a component(s) of start-ups.

k. The proposal includes on the participation of many young researchers (under 40).

l. The representative organizations are officially recognized as the entity promoting life-work balance.

Consideration will be also given to other issues such as transparency and integrity of research, appropriate handling of research outcomes and information management.

3) Screening Process

There are two stages including i) screening of documents and ii) interview.

i) Screening of documents

The members of the Board of Trustees will examine and select proposals in accordance with the Screening Criteria as in 2) above, for the next stage (shortlisted for the interviews).

ii) Interview

Applicants selected in i) above will be interviewed, and the Board of Trustees will select the ones for approval.

iii) Selection of PMs

BRAIN will check against duplicate applications for the proposals selected in ii) above. With the approval of OMC and CSTI, BRAIN will adopt PMs for the Program.

4) Notification of Screening Results

Applicants will be notified of the screening results, and the results will be posted on BRAIN website with successful application numbers (the ones given to applicants in submissions via e-Rad).

BRAIN will not respond to any inquiries regarding the screening process.

The adopted PMs will be informed of necessary modifications on the receipt of the results, and they are responsible for revising the Proposed Content under the direction of the PD. Note that no contract will be arranged/signed with PMs who fail to perform necessary modifications.

9. Refinement of Projects

Under the direction of the PD, the adopted PMs will refine (review and embody) the content of the Projects, including scenarios for achieving the MS Goals, project plans, joint research institutes and collaborators (added or removed), and the amount and allocation of research funds.

The Projects will be refined to ensure and adjust:

i) the food loss perspectives, e.g., targets to achieve substantial reduction, scenario, plan, framework and others as necessary,

ii) the business perspectives, e.g., involvement of business entities, collaboration with stakeholders, business implementation,

iii) the succession and proper use of outcomes from the project previously conducted on food loss reduction; and,

iv) the plan to address cross cutting issues over the Goal 5, e.g., intellectual properties, data management, international collaboration, ELSIs, mathematical science.

10. Contract

1) Establishment of Contract

The contract will be established between BRAIN and the representative organizations. See Annex 6 and its Appendices for details.

Prior to the establishment of the contract, the representative organization must establish a consortium by one of the three types described in 3-4)-ii above, i.e., "regulation type", "agreement type", or "joint research type".

BRAIN may identify another contractor in the case of exceptional circumstances of the initially planned contractor.

2) Contract Period

The starting date of the contract period is the date on which BRAIN formally accepts the research plan (i.e., the outline of the refined project plan) attached to the contract. The representative organization may claim the expenses which occurred within two months in advance of the contract period, which cannot be earlier than the date of adoption.

3) Review and Cancellation of Projects

The R&D may be modified/suspended in the middle of the originally planned period according to the results of the reviews, to take place in the project period.

4) Report Submission

The representative organizations are required to annually submit to BRAIN the detailed financial reports and supporting documents by the end of March.

See the "Guidelines for the Implementation of Commissioned Research: Administrative Procedures" (available only in Japanese).

https://www.naro.go.jp/laboratory/brain/contents/R04SOP_Integrated_ver1.1.pdf

11. Intellectual Property

BRAIN will not, in principle, share intellectual property rights of the research outcomes obtained by domestic institutions in accordance with Article 17 of the Industrial Technology Enhancement Act, to facilitate the R&D success.

1) Intellectual Property Management

Intellectual property should be properly managed, based on the "Policy on Intellectual Property in Agriculture, Forestry and Fisheries Research" (MAFF Agriculture, Forestry and Fisheries Research Council, February 2016), In this respect, at the initial stage of research an agreement must be developed, agreed within each consortium on the intellectual property ("Intellectual Property Rights Agreement") and reported to BRAIN (see Annex 7).

It is important to facilitate open access for all the consortium members to the intellectual property obtained within the consortium for early commercialization and business implementation of the research outcomes. In addition, a policy on acquisition of intellectual

property rights must be formulated based on the Intellectual Property Rights Agreement.

While foreign research institutes are expected to participate in the Program to promote R&D with global wisdom, it is essential to properly formulate the Intellectual Property Rights Agreement and the Policy on Acquisition of Rights so as to prevent divulgation of research outcomes.

2) Oversea members and Intellectual Property Rights

While BRAIN will not, in principle, share intellectual property rights of the research outcomes obtained by domestic institutions under the certain conditions.

In the case of the intellectual property rights generated by the member(s) of oversea institute(s), the intellectual property rights will be shared between BRAIN and the relevant institute(s), in which the share of BRAIN should be 50% or more.

3) Requests and reports for Intellectual Property Rights

The institutes, through the representative organizations, should report to BRAIN of application, registration and withdrawal of their Intellectual Property Rights. When the Intellectual Property Rights are planned to implement, license or transfer out of Japan, formal requests should be made for BRAIN's approval in advance.

4) Intellectual Property Committee

BRAIN has established the Intellectual Property Committee for MS Goal 5. The Intellectual Property Committee, which consists of the PD, PMs, relevant Ministerial officials, and experts, makes policy decisions including patents and collaborates with consortia as necessary. The Committee will make necessary adjustments for relevant issues including patents obtained from the research outcomes so as not to hinder the R&D projects.

5) Intellectual Property Steering Committee

i) Each consortium will establish an Intellectual Property Steering Committee.

ii) The Intellectual Property Steering Committee will be chaired by the PM and the relevant representative organization will establish the secretariat to support the Committee.

iii) The Intellectual Property Steering Committee will consist of the PM and joint research institutes concerned with the particular intellectual property rights in question, and, if necessary, may include external experts who agree to the confidentiality.

iv) In accordance with the provisions of the Intellectual Property Rights Agreement, the Intellectual Property Steering Committee is responsible for the publication of academic papers on the outcomes of R&D, application and maintenance of Intellectual Property Rights", how to deal with relevant experiences, and the granting of rights, as well as policy coordination on the use and licensing of intellectual property.

v) Consultation may take place in writing on the exercise of intellectual property rights for the minor matters. intellectual property after the project completion.

vi) By the end of contract period, the Intellectual Property Steering Committee should make necessary decisions on how to manage the intellectual property after the project period. In case there remain the intellectual property rights which no member wishes to own, Intellectual Property Committee will decide how to deal with them (e.g., surrender, or succession by BRAIN).

12. Research Outcomes

1) Research Outcomes Management

The following matters should be also noted in relation to intellectual property rights:

i) It is strongly encouraged that the research outcomes will support the promotion of the national industries of agriculture, forestry and fisheries, for which BRAIN may request the effective use of the research outcomes from the project.

ii) Intellectual property rights acquired as a result of the projects are subject to:

- "Guidelines on Research Licenses for Intellectual Property Rights Arising from Government-Funded Research and Development at Universities etc." (determined by the Council for Science and Technology Policy on May 23, 2006), available at: https://www8.cao.go.jp/cstp/output/iken060523_2.pdf (in Japanese), and,
- "Guidelines for Facilitating the Use of Research Tool Patents in the Life Sciences" (determined by the Council for Science and Technology Policy on March 1, 2007), available at: https://www8.cao.go.jp/cstp/output/iken070301.pdf (in Japanese).

iii) Proper arrangement is needed between the organization and its employees so that the organization will succeed the rights to be obtained from the R&D projects.

iv) It should be noted that intellectual property rights may not be claimed due to the lack of novelty if the research outcomes are disclosed before the patent application. Timely application for the exception may avoid such problems if the research outcomes need to be published promptly. It should be also noted that the relevant laws and regulations may vary from a country to another in the case of oversea applications.

2) Effective Use of Research Outcomes

The Intellectual Property Committee may, if deemed necessary, request the information exchange on unpublished or unapplied research outcomes between the consortia of the MS Goal 5.

3) Presentation of Research Outcomes

If the outcomes of the project are to be presented to domestic and international academic societies, mass media, and other occasions, it must be done in accordance with the policies established by the Intellectual Property Steering Committee and in consideration of the protection of intellectual property.

The consortium members are required to notify BRAIN through the representative organization in advance when they plan to present the project activities or outcomes. This includes various tools such as websites, newspapers, books, magazines, symposia, conferences. The relevant materials must clearly state that they are the activities or outcomes of the project and submitted to BRAIN.

4) Research Reports

i) Research Outcome Reports

The members of each consortium are required to prepare a research report at the end of each year and at the end of research, which the representative organization will submit to BRAIN. The use of the outcomes should be annually reported to BRAIN for five years after the completion of the research.

ii) Research Financial Reports

The members of each consortium are required to submit a financial report, which the representative organization will collectively and annually submit to BRAIN during the project period.

5) Data Management

Proper data management should be conducted based on Basic Policy on Data Management

(see Annex 10).

PMs are required to formulate a data management plan (DMP) prior to the Commission Agreement based on Basic Policy on Data Management, with the agreement in the consortium members. The DMP will be the one to follow during the project.

It should be noted that the management and proper use of the data obtained from the project will be subject to the evaluation.

13. Project Evaluation

1) Evaluation by External Experts

Based on Annex 3: Guidelines for the Operation and Evaluation of the Moonshot R& D Program, BRAIN will organize external evaluations with Board of Trustees. In principle, the external evaluations will be conducted annually based on the criteria, and the results will be reported to SPC and MAFF. The results will be also a basis for annual review/revision of the portfolio.

2) Evaluation Items and Criteria

The evaluation items and criteria are as listed below. These are to evaluate the necessity, efficiency, and effectiveness of the Moonshot R&D projects based on the guidelines above. In addition to achievements and shortfalls, evaluations also include analysis of their causes and factors, as well as suggestions for improvement.

Evaluations may result in changes in project plans, budget, or termination (dismissal of the PM).

[Evaluation Perspectives]

The external evaluation is to be performed mainly from the following perspectives, based on which BRAIN, in cooperation with the relevant ministries and agencies, will establish a set of detailed evaluation criteria.

<Evaluation of Project>

- Adequacy of objectives and content of the Project to achieve the MS Goal 5.
- Progress toward the objectives of Project (in the context of national/global R&D competition)
- Future prospects for the objectives of Project
- R&D framework with proper resource use
- Project management by PMs (including mobility and flexibility)
- Research data storage, sharing and publication
- Collaboration with industry (including fund raising/matching and spin-out)
- International cooperation for effective and efficient R&D promotion
- Challenging and innovative approaches based on ambitious ideas
- Effective and efficient use of available funds (including proper roles between the public and private sectors and stage gate process)
- Dialogues with public on science and technology

3) Others

The PD, as his portfolio management, may review PMs and the projects beyond the planned evaluation, as necessary.

14. Follow-Up

Follow-up actions, including evaluations and surveys, may be conducted at a certain period of time after the completion of Project, when the relevant researchers may be asked to provide information and respond to interviews.

15. Elimination of Unreasonable Duplication and Excessive Concentration

The project adoption may be xxx or the budget may be substantially reduced (or the application may not be considered prior to the adoption) if unreasonable duplication and/or excessive concentration are found based on the plan or other information available.

If unreasonable duplication and/or excessive concentration is found, the application may be removed from the screening process. If such cases are found after the adoption, the adoption decision may be revoked, or the project costs reduced.

*1 Unreasonable duplication refers to a situation in which the same research plan of the same researcher is allocated with plural funds, and any of the following cases applies:

- A virtually identical research plan (or with a considerable overlap) is submitted and approved for plural projects;
- Plural applications are submitted with a virtually identical research plan, approved and allocated;
- There is a financial overlap in the research plan between plural research plans; or,
- Other cases similar to the above.

*2 Excessive concentration refers to cases where the total funds allocated to a researcher or a Research Group in a year exceeds the amount that can be used effectively and efficiently and cannot be spent properly. Any of the following cases applies:

- Research funds are allocated considerably beyond the capabilities of researchers and their research methods;
- Research funds are allocated for an experiment and research plan beyond the time and resources needed for the plan;
- Unnecessarily expensive research equipment is planned to purchase; or,
- Other cases similar to the above.

Other relevant information is described in detail in the guidelines of Japanese version, which will be consulted after the adoption.

16. Integrity

See notes for Integrity in the Japanese version of the Application Guidelines.

17. Measures to Prevent Misuses of Research Funds

It is essential for the people involved in the R&D projects to note the following guidelines in

order to prevent the misuse of research funds:

i) “Guidelines for Management and Audit” established by MAFF in accordance with the “Measures to Prevent the Misuse”

http://www.affrc.maff.go.jp/docs/pdf/141218_kanri_kansa_guidline.pdf (in Japanese),

and,

ii) “Misconduct Guidelines” of BRAIN

https://www.naro.go.jp/laboratory/brain/contents/tyuusitoujissiyouryou.pdf (in Japanese)

The representative organizations must establish an appropriate operation and management system for research expenses in accordance with the Guidelines for Management and Audit above. See Japanese version of the Application Guidelines for details on misuse avoidance.

18. Response to False Applications

If fraud acts are revealed in the application, the commission agreement may be cancelled, the funds may be returned, damage compensation may be claimed among others.

Likewise, for those who have received funds through illegal means and who have conspired with them, as in the case of the misuse and fraudulent receipt of the fund.

19. Measures to Prevent Misconducts in Research Activities

It is essential for the people involved in the R&D projects to note the following guidelines in order to prevent misconduct:

- "Guidelines for Responding to Misconduct in Research Activities Funded by MAFF" (Guidelines for Misconduct).

Each research institute is required to establish an appropriate system to avoid misconduct in advance and to provide relevant guidance and trainings. See Japanese version of the Application Guidelines for details on misconduct avoidance.

20. Applications by Suspended Organizations

No applications will be accepted if any research institute is involved that have been suspended by MAFF. The same will apply if the suspension takes place in the selection process.

21. Support for Young Researchers and Effective and Efficient Use of Research Funds

The information is available on support for young researchers and effective/efficient use of research funds in the Japanese version of Application Guidelines.

22. Information Management

1) Implementation Framework for the Program on Information Management

The establishment of the following systems must be ensured, and any changes to the systems should be discussed in advance with BRAIN:

i) The representative organizations are required to appoint "Information Managers qualified to handle the information necessary for the proper performance of the contract.

ii) Information Managers are required to have the background, knowledge, qualifications, language skills (of native and foreign languages), cultural background (e.g., nationality), achievements, and other appropriate knowledge and skills that are necessary or useful for the performance of the contract.

iii) Information Managers should be capable of carrying out the operations required for the proper performance of the contract.

2) Information Security

Information security should be properly managed in accordance with:

- Annex 8: Information Security Standards for Procurement ("Standards"), and,
- Annex 9: Additional Provisions for Ensuring Information Security in Procurement ("Additional Provisions").

In this regard, the following information management systems should be established, and BRAIN must be notified without delay of any changes in this system:

i) A system to ensure that all information collected, organized, and prepared by the Trustee as part of the performance of the contract is protected until BRAIN determines that no protection is needed.

ii) A system to ensure that no one is allowed to handle information other than those designated with the consent of BRAIN

iii) A system to ensure that information is not provided or leaked to any party other than the Research Group. See Annex 8 for details.

3) Requirements for Applicants

i) Applicants must understand and accept the Standards (as in Annex 8), the present Guidelines, and the Additional Provisions (as in Annex 9) to apply.

ii) Applicants, when adopted, are also required to fill out forms and/or submit relevant documents regarding items 5 through 12 of the Standards (as in Annex 8) or a written pledge stating that they will comply with such items, before signing the contract.

Applicants are responsible for providing explanations on the submitted materials, answering questions, submitting additional materials, and responding to the request for consultation with BRAIN. Note that the application will be rejected if the systems are deemed insufficient.

23. Compliance with Laws, Regulations and Guidelines

Research may be subject to suspension, cancellation of the contract, or withdrawal of the decision to approve proposals when violation is identified against applicable laws, regulations and/or guidelines.

See the Japanese version of the Application Guidelines for details for personal information, export controls for security, genetic resources use beyond boarders among others.

24. Authentic Language

It should be noted that the Japanese version of the Application Guidelines is official and English translation is only for reference.

25. Contacts

Inquiries can be made through the contact information below before the application deadline. No questions can be answered regarding the screening process, information on proposals of other applicants, or matters that may benefit only limited applicants. Based on the contacts (but without personal information nor identifiable information), additional information will be posted on BRAIN website without disclosing personal nor identifiable information.

1) BRAIN

a) Inquiries on the call

MS Team, Strategic Research Development Division, BRAIN

E-mail: seiken-moonshot[at]ml.affrc.go.jp (replace [at] with @)

b) Inquiries on the contract procedure

Research Management Division, BRAIN

E-mail: brain-jimu[at]ml.affrc.go.jp (replace [at] with @)

2) e-Rad

Inquiries on e-Rad (Cross-Ministerial Research and Development Management System)

e-Rad Help Desk TEL: +81-(0)3-6631-0622 (in Japanese)

e-Rad Help Desk office hours: weekdays 9:00-18:00 (Japan Standard Time)

e-Rad Help Desk website: https://www.e-rad.go.jp/en/contact.html