The Implementation Guidelines of the "Moonshot R&D Program for Agriculture, Forestry and Fisheries"

Note: This document is provisional translation for reference purpose. Japanese version is official.

Bio-oriented Technology Research Advancement Institution (BRAIN)



Based on the Moonshot Research and Development System led by the Cabinet Office, this Implementation Guidelines stipulates the administrative procedures, and so on, for the implementation of test and research and the contract for commissioned test and research (Hereafter referred to as the "Agreement".) to be concluded with the commissioned research organization (Hereafter referred to as the "consignee".) by the Bio-oriented Technology Research Advancement Institution (Hereafter referred to as "BRAIN".), the research and development corporation engaged in the relevant research and development.

In accordance with the Moonshot R&D Program for Agriculture, Forestry and Fisheries Commisioned Test and Research Contract, this Implementation Guidelines and the Guidelines for Contracting Research and Development - Administrative Procedures - (Hereafter referred to as " Administrative Procedure".) dated April 1, 2021, the participating research organizations are requested to execute appropriate contract costs for effective and efficient research promotion.

If there is any discrepancy between this Implementation Guidelines and the Administrative Procedures, the provisions of this Implementation Guidelines shall prevail.

This Implementation Guidelines in Japanese must be original. Since English translation is prepared for reference purposes, only the Japanese text shall have effect and the English translation shall not have any effect.

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I Project Overview

1 Purpose of Project

BRAIN supports research and development related to biological specific industrial technologies carried by private companies, universities, national research and development agencies, prefectural testing stations, and local independent administrative agencies.

The Council for Science, Technology and Innovation (Hereafter referred to as "CSTI".) decided to promote challenging research and development (moonshots) based on bolder ideas that are not an extension of conventional technologies aiming to create disructive innovation from Japan.

To achieve MS Goal 5 "Creation of food supply industry that enables sustainable global food supply with no overburden nor waste by full use of unutilized biological resources by 2050" of the Moonshots Goal (Hereafter referred to as "MS Target".) determined by CSTI, the Ministry of Agriculture, Forestry and Fisheries has defined fields and areas in which challenging research and development should be promoted as Research and Development Initiatives (Hereafter referred to as the "R & D Initiatives".).

Under the Moonshot Research and Development Program, BRAIN as a research funding agency establishes fund and carries out the Moonshot Research and Development Program for Agriculture, Forestry and Fisheries (Hereafter referred to as the "Project".) to achieve MS Goal 5 and realize R & D Initiatives.

In implementing this project, we will follow the Moonshot Research and Development System Operation and Evaluation Guidelines (February 4, 2020 Director General for Science, Technology and Innovation, Cabinet Office, Director General for Science, Technology and Academic Policy, the Ministry of Education, Culture, Sports, Science and Technology, Executive Director of the Council for Agriculture, Forestry and Fisheries Technology, the Ministry of Agriculture, Forestry and Fisheries, and Director General for Industry, Technology and Environment, the Ministry of Economy, Trade and Industry).

2 Basic Characteristics

This project is a commissioned project conducted under a commissioned contract between BRAIN and the representative organization representing the members of a consortium consisting of multiple research institutions (Hereafter referred to as the "representative organization".), and BRAIN commissions research to research institutions.

3 Research Topics

In order to balance the expected increase in the world population with the preservation of the global environment, this project will engage in research and development projects (Hereafter referred to as the "Project".) aiming to achieve MS Goal 5 " Creation of food supply industry that enables sustainable global food supply with no overburden nor waste by full use of unutilized biological resources by 2050" and realizing the R & D Initiatives.

(Target)

- By 2050, fully utilize biological functions of microorganisms and insects, and others and develop a complete resource recycling food production systems.
- By 2050, develop solution methods that eliminate food loss and waste and promote healthy and environmentally friendly reasonable food consumption.

• By 2030, develop and demonstrate a prototype of the above systems, and promote discussion on ethical, legal and social issues (ELSI) in parallel to globally spread the systems by 2050.

4 Project Period

Beginning in fiscal 2020, the project period will be, in principle, for 5 years with a maximum of 10 years. The project may be changed (Accelerate, Decelerate) or terminated based on evaluation results. The evaluation will be conducted besides in the third year from FY2020, in principle, in the fifth year and when the PD deems it necessary.

However, the CSTI will decide in the fifth year (FY 2024) from the start of the research whether the research and development (R & D) program aiming to achieve the MS Goals will be continued or terminated.

II Management and Progress of Commissioned Research

1 Implementation Structure

(1) Role of the BRAIN

BRAIN is responsible for realizing initiatives aiming to achieve the MS Goals, and its main tasks are to:

- i) Appoint a qualified person as the Program Director (Hereafter referred to as the "PD".) to lead and supervise a multi-project program in an integrated manner. If necessary, sub-PDs to assist the PD or advisors such outside experts may be appointed.
- ii) In consultation with the PD, multiple Project Managers (Hereafter referred to as the "PM".) will be recruited and adopted to help achieve the MS goals.
- iii) Decide a management plan (Hereafter referred to as the "Portfolio".) that outlines policies such as the composition (combination) and resource allocation of the projects developed by the PD.
- iv) Direct the PM to develop a plan under the direction of the PD.
- v) Collect and analyze information on research and development trends in Japan and abroad and information on issues for social implementation of research and development results. Collect and analyze information by incorporating the opinions of outside experts including researchers in the fields of humanities and social sciences.
- vi) Inquire from the PD and PM about the progress of the project, the appropriateness of the allocation of research funds and the review of the allocation of research funds accordingly, and the appropriateness of the status of the division of roles between the public and private sectors in accordance with the progress of research and development and report the findings to the Strategic Promotion Council established by the Cabinet Office and to the Cabinet Office each fiscal year in principle.
- vii) Provide support for intellectual property management, international standardization, public relations, and technology trend surveys, etc., so that the PD and PM can carry out management appropriately. In addition, identify promising projects (or parts of projects) from the perspective of social implementation of research and development results from an early stage, and make the support of specialized human resources available as needed so that the connoisseur function can be effectively used to chart a concrete path toward social implementation. In addition, in order to gain the understanding and support of the public, support will be provided so that PD and PM can smoothly carry out two-way communication activities (science and technology dialogue with the public) to explain research activities to the public

in an easy-to-understand manner.

- viii) Since cross-cutting support for ethical, legal, and social issues (ELSI: Ethical, Legal and Social Issues)/mathematical sciences is also important for accelerating research and development and social implementation, a forum will be established for PD and cross-cutting researchers to exchange views, and if PD judges that cross-cutting researcher support for PM is necessary and PM also needs such support, a mechanism will be established so that PM can receive cross-cutting researcher support.
- ix) A new PD will be appointed immediately in the event of an accident or vacancy in PD and if PD is judged that it is not performing its duties. In the event of an accident or vacancy of a PM, or in the event that the PD determines that the PM is unable to fulfill his or her duties, the implementation structure of such project shall be promptly reviewed in consultation with the PD. In the case of continuing a project, based on recommendations from the consortium of the relevant project, a new PM may be selected based on the judgment that the project can be smoothly promoted, rather than through recruitement. In this case, the new PM shall be approved by the Board of Trustees. Until a new PM is selected, a temporary proxy PM may be appointed in consultation with the PD.
- x) Details will be determined on the treatment of the PD, sub-PD and PM.
- xi) An environment will be established in which young researchers with bold and flexible ideas who will play a role in the future society can actively participate in each project of Goal 5.
- xii) In order to establish a state-of-the-art research support system, we will collaborate with other research funding agencies and share relevant research and development trends in Japan and overseas.
- xiii) In order to promote advanced data management, we will manage a data catalog consisting of metadata submitted to PM and researchers by using a research data infrastructure system, etc.
- xiv) We will make efforts in collaboration with relevant ministries and other research funding agencies, and strive to create an environment in which researchers can devote themselves to research by improving the efficiency of evaluation work, etc. In addition, we will make efforts to prevent research fraud and misuse of research funds in advance at consignees, and others, while also utilizing advanced data management to ensure research fairness.

(2) Role of the PD

BRAIN has appointed Dr. Kazuhiro Chiba, President of Tokyo University of Agriculture and Technology as the PD to realize MS Goals and R & D Initiatives.

The main duties of PD are to:

- i) Strategically build a portfolio and promote R & D in a challenging and systematic manner to realize MS Goals and R & D Initiatives.
 - *In building a portfolio, consider the innovation and originality of R & D and its future economic and social ripple effects.
- ii) Always keep track of the progress of R & D based on the portfolio, and uniformly direct and supervise the PM overseeing the project while reviewing the portfolio according to the progress of the research.
- iii) Lead the review of the portfolio based on evaluations and advice from outside experts.

(3)Role of the PM

PMs are authorized to promote the project.

The PM incorporates various findings and ideas from the basic research stage, engages in challenging research without fear of failure, manages each project under his own direction, and takes responsibility for the entire project.

The PM's main duties are to:

- i) Develop a project plan (Setting of project goals, development of R & D content and implementation schedule, establishment of implementation structure, development of plans to allocate research funds to research institutes participating in the project, etc.) and implement the project strategically under the direction of the PD. In addition, with mobility and flexibly change the direction of the project, including the spin-out of some research results.
- ii) Proactively and strategically promote international collaboration while conducting appropriate intellectual property and information management.
- iii) Objectively evaluate research content and for research and development at a stage where it is effective to utilize private funds, efforts will be made to search for private companies to take on the role and utilize private funds. In addition, interactive communication activities (science and technology dialogue with the public) will be conducted to explain the project to society in an easy-to-understand manner.
- iv) Formulate a data management plan (DMP) to define the scope of the data that should be managed, and based on this, metadata of the data that should be managed will be collected from the researchers and submit to the BRAIN. In addition, the data that should be managed will be stored, shared and published to the extent necessary using the Research Data Infrastructure System.

(4)Role of the representative organization

The organization to which the PM belongs is the representative organization.

The main duties of the representative organization are as follows:

- i) Conclusion of contract with the BRAIN
- ii) Facilitate thorough compliance with commissioned contract terms to consortium members (collaborative research institutions)
- iii) Request for and receipt of funds for commissioned projects to BRAIN
- iv) Grant of funds to consortium members (collaborative research institutes)
- v) Application to change or suspend the commissioned contract with the BRAIN
- vi) Planning and progress management of research related to commissioned research topics, and compilation of results
- vii) Ensuring compliance with the use of research funds related to commissioned projects in consortium, and proper execution and management of research funds
- viii) Promotion of acquisition of patent rights, etc. related to research results regarding members' intellectual property rights
- ix) Submission of reports of research results, advance application forms for patent rights and licenses, various reports and advance application forms based on commissioned contract, etc. to BRAIN
- x) Confirmation and compilation of performance reports (settlement of accounts, etc.) submitted by members

- xi) Submission of performance reports (settlement of accounts, etc.) to BRAIN
- xii) Reporting on follow-up surveys on the dissemination and utilization of the results of commissioned projects

(5)Role of the Board of Trustees

BRAIN establishes an evaluation system with outside experts and conducts external evaluations. In principle, external evaluations are conducted in the third and fifth years from the start of the study, and in the eighth and 10 years if it is decided to continue the project beyond five years. BRAIN can advance the predetermined evaluation period by assessing the progress of the project. In principle, BRAIN conducts a self-evaluation every fiscal year (except for the fiscal year in which the external evaluation is conducted) in accordance with the evaluation criteria set out separately and reports the results to the Strategic Promotion Council and the the Ministry of Agriculture, Forestry and Fisheries.

(6)Role of the Management Committee

Ministry of Agriculture, Forestry and Fisheries will establish a Management Committee at BRAIN to ensure that the project is properly executed in accordance with the objectives of the project. The role of the Management Committee is as follows:

- i) Selection of candidates for PD and PM, nomination of committee members such as the committee to evaluate the project, and establishment of agenda for discussion
- ii) Approval of selection criteria of candidates for PD and PM
- iii) Approval of portfolio (draft)
- iv) Approval of project evaluation criteria
- v) Guidance and supervision based on evaluation results
- vi) Other matters deemed appropriate for the efficient and effective execution of the project

2 Intellectual Property Management

(1)IP Committee

BRAIN has established an IP Committee to properly manage IP in order to secure incentives for inventors and those promoting on-site dissemination and industrialization, and to increase the interests of the people. Specifically, the committee will: (1) establish IP policies for the entire program, (2) aggregate IP information from each consignee, and (3) coordinate IP rules for collaboration among consignees.

The IP Committee will make policy decisions for the presentation of research and development results and the application and maintenance of patents, etc. (Also includes breeder's rights for new varieties of plants. Hereafter referred to as "Intellectual Property Rights".), as well as coordinate licensing of IP rights as needed.

In principle, the IP Committee will consist of the PD, PMs, the relevant ministries and experts. The details of how the IP Committee will operate will be separately determined by BRAIN.

(2) IP Steering Committee

- i) Each consortium establishes an IP Steering Committee.
- ii) The IP Steering Committee is chaired by the PM, and a secretariat is established in the representative

organization.

- iii) The IP Steering Committee is composed of the PM and the collaborative research institutions related to intellectual property rights that are the subject of consultation, and external experts who have agreed to comply with these terms with respect to confidentiality may be added as necessary.
- iv) In accordance with the Policy on the Handling of Intellectual Property (If you have already submitted an IP agreement, an IP agreement), the IP Steering Committee decides the policies for the publication of research papers on research and development results, the application and maintenance of intellectual property rights, the handling of know-how, confidentiality, etc., as well as the policy on the utilization of intellectual property, coordination on the licensing of intellectual property rights, and the consideration of open and closed strategies such as clarification of the categories for the storage, sharing, and disclosure of data that should be managed.
- v) Consultations on the operation of intellectual property rights may be replaced by written document consultations if any of the following applies:
 - · In case of minor matters for consultation
 - In case of need for consultation after the end of the program
- vi) The management of intellectual property after the end of the project shall be decided through consultation in advance by the IP Steering Committee in accordance with the Contract for Commissioned Testing and Research.

3 Checking the Progress, etc.

In addition to checking the progress with the representative organizations as necessary, BRAIN manages the progress of the research by visiting the research sites to understand the actual status of the research and the requests of the subcontractors.

III. Implementation of Commissioned Research

1 Implementation and Promotion of Commissioned Research

This project is carried out in the following sequence: refinement of a project, formation of a consortium, submission of the research plan, meeting to discuss the research plan, conclusion of the contract, implementation of test and research, evaluation, and submission of test and research results reports.

(1)Refinement of a project

Under the direction of the PD, the PM will brush up (refine and embody) the content of the project plan proposed at the time of application, including scenarios leading to the achievement of the MS Goals, project plans, collaborative research institutes and cooperating organizations (addition or deletion), and research funds.

After the refinement of the project plan is completed, the research funds will be determined at BRAIN after following the prescribed procedures such as approval and decision of the portfolio.

(2)About the Feasibility Study

In the case that your project is expected to yield results provided successful while required technical scrutiny you shall start the project as a Feasibility Study. Under the direction of the PD, you shall identify the

matters to be clarified by the specified date. Depending on the results of the evaluation described later, the plan of the project may be changed, R & D funds may increase or decrease, or the project may be cancelled (dismissal of the PM).

(3)Optimization of research structure by means of consortium

i) Promotion of research and development on a consortium basis

The basic policy of this project is to organize a consortium consisting of universities, national research and development agencies, and companies responsible for putting research results to practical use for each public call unit in order to engage in research and development based on more bold ideas.

Under the direction and advice of the PD, sub-PD, and others, the PM should closely coordinate research and development among the consortium members (Hereafter referred to as the "Members".) so that synergies can be realized.

ii) Cooperation among consortia

The PD or sub-PD will monitor the progress of research in each consortium, provide guidance and advice to the PMs on matters requiring collaboration among consortia, and convene relevant parties as necessary to discuss effective collaboration measures. In this case, a web conferencing system will be actively used.

iii) Consortium research promotion meetings, etc.

Each consortium to which research is commissioned shall promote research by holding research promotion meetings, and others, as appropriate, related to evaluation including on-site examination, and examination of the results of each fiscal year. The scope of the gathering shall be PD, sub-PD, PM, research executors, employees of the BRAIN, employees of relevant ministries, and so on, approved by the PM.

Expenses necessary for the holding of the meeting may be paid from the commissioned research fund. It is not necessary for each consortium to pay for the travel expenses, and others, of the employees of the BRAIN and the employees of the relevant ministries and agencies.

(4)Establishment of a consortium

The representative organization should establish a consortium by either method (a) in which Consortium Terms and Condition are drawn up regarding the implementation of commissioned projects, and so on, and obtaining collective or individual agreement of each research organization joining to the Consortium in a written consent separate from the Consortium Terms and Condition (Separated agreement for joining the Consortium), (b) in which Consortium Terms and Condition are drawn up, and the research institutes that make up the research group exchange an agreement jointly signed in the Consortium Terms and Condition (Agreement in the joint names in the Consortium Terms and Condition), or (c) of concluding a joint research institution agreement between research institutions that make up a research group to jointly implement a commissioned project (Joint Research Agreement between organizations). After establishment, submit copies of the Consortium Terms and Condition, agreements, and contract documents to BRAIN.

If it is judged difficult to conduct the research because a special change in circumstances regarding such as consortium members to be commissioned happens in the period from the decision of consignee to the conclusion of contract, it is also possible to change the concluding party of the commissioned contract.

(5)Preparation of Test and Research Plan and Commissioned Test and Research Implementation Plan

i) Test and Research Plan

The representative organization is requested to prepare a draft Test and Research Plan (The form is specified separately.) covering the entire research period, reflecting the ancillary conditions, if any, when the project is formulated and adopted, and submit it to BRAIN by the date designated by BRAIN. After the 2nd fiscal year, please update the Test and Research Plan of the previous fiscal year to the content of the relevant fiscal year (please make the updated part with changelog).

< First fiscal year >

Please use the form of "Test and Research Plan" to fill in the structure of the test and research plan for the entire commissioning period, the implementation structure, the purpose of the study and technical problems, and the research content, and so on.

Please reflect the research content and the annual research expenses, etc. stated in the plan into the "Commissioned Test and Research Implementation Plan," which is attached as an annex to the commissioned contract.

< Second fiscal year and later >

Please use the form of "Test and Research Plan" to fill so that we can see the parts that have been updated from the previous year. The amount of research funds for the current year is that of the annual research budget set in the first fiscal year for the current year.

< Estimate >

Each fiscal year, please prepare an estimate for each expense item related to research expenses for the relevant year using the following format and submit it together with the Test and Research Plan for the relevant year.

Estimation Form 1 of the Test and Research Plan, "Breakdown by Item of Commissioned Expenses for the Entire Group," is the sum of Estimation Form 2, "Calcuration Basis for Research Expenses by Member," prepared for each consortium member.

- Estimation Form 1 "Breakdown by Item of Commissioned Expenses for the Entire Group,"
- Estimation Form 2 "Calcuration Basis for Research Expenses by Member," (prepared by member)
- Estimation Form 2-1 "Purchasing Plan" (prepared by member)
- Accumulation Method 2-2 " Calcuration Basis for Consumables " (prepared for each member)
- Accumulation Method 2-3 "Labor Cost and Wage Details" (prepared for each member)

< Implementation Structure >

For each consortium, a PM and a General Accounting Manager will be assigned as the person responsible for overall management of the Test and Research Plan. Furthermore, a Research Implementation Supervisor and an Accounting Manager will be assigned as the person responsible in each consortium member, and researchers will be assigned to carry out the test items under the Research Implementation Supervisor.

Establish a research implementation system by securing the necessary researchers, research assistants, and administrative personnel to achieve the research goals.

Wages, travel expenses, and other expenses paid in this project will be paid to the personnel described in the Test and Research Plan for the relevant fiscal year, so if there is a change in personnel, the Test and Research Plan must be changed from time to time.

a. Researcher

- A person who is actually engaged in the research activities of the consortium members, having the ability as an independent researcher, such as the ability to perform a given task or the expectation of achieving a goal, and who has a clear role in the research and is responsible for its implementation to achieve the goal.
- 2) In principle they must be full-time researchers and postdoctoral researchers who can devote themselves to the research concerned.
- 3) If research or accounting irregularities are discovered in a consortium member's assigned task, the member is subject to penalties such as application restrictions.
- b. Research assistant

A person who, under the guidance of the researcher, performs supporting work such as research assistance, maintenance and management of research materials, data organization, for the research that the researcher is responsible for. Basically, a person who can devote himself to the research concerned.

c. Administrative personnel

A person who performs work to support research activities such as procedures for purchasing consumables, maintenance and management of equipment, accounting work.

Personnel Structure

Test and Research Plan (Representative organization)

Responsible person: PM, General Accounting Manager

Member A

Responsible Person: Research Implementation Supervisor, Accounting Manager Research subject: Major item 1

Medium item 1 (Researchers)

Medium item 2 (Researchers)

Member B

Responsible Person: Research Implementation Supervisor, Accounting Manager Research subject: Major item 2 (Researchers)

Medium item 1 (Researchers)

MemberC

Responsible Person: Research Implementation Supervisor, Accounting supervisor Research subject: Major item 3 (Researchers)

ii) Research Plan Review Meeting

In order to finalize the Test and Research Plans received from the representative organizations, BRAIN will hold a Research Plan Review Meeting (Hereafter referred to as the "Planning Review Meeting".) with the participation of the PD, sub-PD, PM, BRAIN, representative organizations and key members.

Representative organizations are requested to submit final draft Test and Research Plans reflecting the recommendations of the Planning Review Meeting and the intentions of the PD to BRAIN by the date separately designated by the BRAIN.

iii) Commissioned Test and Research Implementation Plan

Prepare a Commissionned Test and Research Implementation Plan based on the Test and Research Plan prepared above and submit it to BRAIN by the date separately specified by the BRAIN.

iv) "Notice of Eligibility for Competition" of the representative organization and other necessary documents

Copies of the "Eligibility for Competition" of the representative organization (local governments are not required) and other documents required to be submitted by BRAIN should be submitted promptly.

(6)Conclusion of commissioned contract

After the Test and Research Plan is finalized, a commissioned contract will be concluded between BRAIN and the representative organization.

The contract agreement will be accompanied by the Commissioned Test and Research Implementation Plan prepared based on the Test and Research Plan.

(7)Implementation of research in accordance with the Test and Research Plan

Implementation of commissioned research and budget execution must be carried out in accordance with the Test and Research Plan.

In the first fiscal year of the contract, the commissioned research begins on or after the start date specified in the contract term (the contract research start date). In principle, April 1 is the start date of the contract research after the next fiscal year.

(8)Submission of various reports and development of study and research plans after the next year

i) Submission of performance reports on expenses

After the completion of the commissioned research for each fiscal year during the commissioned period, the representative organization shall prepare a "Commissioned Test and Research Performance Report" on the funds for the relevant fiscal year (Hereafter referred to as the "Performance Report".) and submit it to BRAIN by the date separately instructed by BRAIN, together with documentary evidence of expenses incurred. Based on this submission, BRAIN will determine expenses related to commissioned research for the relevant fiscal year.

For details regarding Performance Report and documentary evidence, please refer to "(16) Inspection, investigation, and others of commissioned project" in "1. Handling of accounting affairs, and others" under "V. Accounting affairs."

ii) Submission of Test and Research Results Reports

For each fiscal project year during the commissioned period, the representative organization shall submit a report of the results of research and development (Hereafter referred to as the "Research Results Report".) for the relevant year to BRAIN by a date separately designated byBRAIN (forms will be specified separately). In principle, BRAIN convenes a Board of Trustees Meeting to evaluate the results of research for the relevant year, and a Planning Review Meeting to optimize the research and development plan for the relevant year based on the evaluation results.

In the final fiscal year of the commissioned period, BRAIN submits a report on the results of research for the entire commissioned period, so please report on the status of utilization of the results for further five years from the end of the research.

For details on the report of research results, please check "2 Report and dissemination of research results" in "III Implementation of commissioned research."

iii) Preparation of Test and Research Plans for the next fiscal year and beyond

During the commissioned period, the representative organization shall submit draft Test and Research Plans for the next fiscal year to BRAIN by a date separately designated by BRAIN. BRAIN shall convene a Planning Review Meeting to consider, in principle, necessary revisions to the Test and Research Plans for the next and subsequent fiscal years based on the results of the evaluation of the research results of the relevant year.

The representative organization shall submit to BRAIN a draft Test and Research Plan for the next and subsequent fiscal years that reflects the recommendations and intentions of the Planning Review Meeting by a date separately designated by BRAIN.

iv) Performance Reports on research expenses disbursed by private firms

Performance reports on research expenses disbursed by private firms themselves are subject to the Administrative Procedure II -22.

(9)Joint Research, and so on

We recommend that third parties other than the members who intend to contribute to the commissioned research participate in the consortium to become members and conduct joint research, etc. with other members based on the Test and Research Plan.

However, among the third parties who are unable to participate in the consortium for some reason, if the content of the joint research, including the role of the third party, is clarified in the Test and Research Plan related to the commissioned research of the member for the purpose of cooperating in the commissioned research shared by the member, the third party is deemed to be a cooperating institution (The third party is hereinafter referred to as the "cooperating organization").

- i) The member may conduct his/her own commissioned research jointly with the cooperating organization if the following conditions are met.
 - (i) The member shall submit a "statement of reasons for joint research with a third party (and a statement of reasons for adding a third party to the joint applicant)" to BRAIN through the representative oprganization in advance.
 - (ii) The member shall clarify the name of the cooperating organization and the contents of the

implementation of the joint research in the Test and Research Plan pertaining to his/her commissioned research.

- (iii) The member shall conclude a Joint Research Agreement, and so on with the cooperating organization in advance.
- (iv) The Joint Research Agreement, and so on set forth in the preceding item shall be a contract in which the relationship to this project and the commissioned contract is clearly stated and which complies with the provisions of the commissioned contract for the maintenance of confidentiality and the treatment of research results.
- (v) When concluding the Joint Research Agreement, and so on set forth in item (iii), the member shall disclose the contents of the agreement in advance to BRAIN through the representative organization, and if BRAIN deems it necessary, coordinate the contents of the Joint Research Agreement, and so on with BRAIN.
- (vi) The member shall obtain in advance the consent (*) of the other members in the consortium to conduct the Joint Research.
- * "Consent of the other members" means, in principle, it is desirable to obtain the consent of all the members participating in the consortium, but it can also be treated as obtaining the consent of the members within a team formed corresponding to each research subject in the consortium to conduct research and development when multiple research subjects are set in the commissioned project.
- ii) Since the cooperating organization is different from the members of the consortium, it is treated as follows.
 - (i) The cooperating organization can not receive the allocation of the commissioned fund directly. Necessary expenses are paid by the representative organization or the collaborative research institution in the form of outsourcing, requested travel, honorarium, and others.
 - (ii) Patent rights, and others pertaining to research results may not be vested. However, only when the representative organization or the collaborative research institution clarifies the reason for adding the cooperating organization to the joint applicant, BRAIN recognizes this, and a joint application agreement is concluded between the representative organization or the collaborative research institution and the cooperating organization that stipulates that the confidentiality and the treatment of intellectual property rights stipulated in the commissioned contract shall be observed, and the consent for the joint application has been obtained within the consortium by the commissioned contract, the representative organization or the collaborative research institution and the cooperating organization or the collaborative research institution and the cooperating organization has been obtained within the consortium by the commissioned contract, the representative organization or the collaborative research institution and the cooperating organization or the collaborative research institution and the cooperating organization or the collaborative research institution and the cooperating organization or the collaborative research institution and the cooperating organization or the collaborative research institution and the cooperating organization or the collaborative research institution and the cooperating organization or the collaborative research institution and the cooperating organization shall be allowed to share the intellectual property.
 - (iii) Since the cooperating organization is not a party to the research subject, the cooperative organization shall not be allowed to independently publish the results of the research subject. However, it shall be allowed for the members of the consortium to disclose the reasons for the publication, and for the publication to be made jointly by the members and the cooperating organization. Please submit a "Prior (Post) Notification of Publication of Research Implementation Details" to BRAIN in advance

through the representative organization (*).

- (iv) Cooperating organizations are not covered by the commissioned contract between BRAIN and the consortium and are not subject to confidentiality obligations. However, the cooperating organizations are in a position to know the purpose, content, and results of the research by participating in the study meetings, and others, run by the consortium commissioned. To ensure that the results, and others are not leaked, the obligation of confidentiality must be stipulated in advance in the agreement or the policy for the handling of intellectual property (If you have already submitted an IP agreement, an IP agreement) established by each consortium.
- * Please fill in the designated file of the web shared folder established by BRAIN in the Agriculture, Forestry and Fisheries Research Information Center (file name: "Prior (Post) Notification of Publication of Research Implementation Details") and contact BRAIN by e-mail, and so on. Please also make telephone contact for important or urgent matters. For details on how to use this web shared folder, see the separate "How to use AFFRIT shared folder (for users outside the organization)." In order to enable access to this web shared folder, BRAIN will contact the representative organizations to inquire about the necessary matters for setting it up. It will then be available after BRAIN has set up the necessary matters.

(10)Suspension of test and research, and others

In the following cases, the representative organization should immediately submit an "Application for Suspension (Abolition) of Commissioned Test and Research" to BRAIN for its approval, along with procedures for settlement based on performance reports and procedures related to acquired products.

i) Improper accounting treatment

If improper accounting (Refers to unauthorized use and unauthorized receipt.) occurs in commissioned research, we will take such measures as suspending the test and research, restricting the eligibility for application, and refunding the commissioning expenses in accordance with the commissioned contract and related regulations. Proper management is required to ensure that the commissioned fund is not used for other purposes.

- * "Unauthorized use" refers to the use of commissioned research funds for other purposes at an institution commissioned with research and development, the expenditure of research funds based on false claims, the misuse of fees for research assistants based on the involvement of researchers, or in violation of the terms and conditions of the decision to use or grant such as competitive funds for other purposes by intentionally or through gross negligence.
- * "Unauthorized receipt" refers to the receipt of competitive funds, etc. by deception or other wrongful means, such as applying using another person's name.
- * "Relevant Regulations"
 - a. Ministry of Agriculture, Forestry and Fisheries: Guidelines for Management and Audit of Public Research Expenses at Research Institutions (Implementation Standards)

(https://www.naro.go.jp/laboratory/brain/contents/kanrikansanogaidorain.pdf)

b. BRAIN: Implementation Guidelines for Suspension of Test and Research against Fraud in

Research Activities (19 Seiken East No. 18)

(https://www.naro.affrc.go.jp/laboratory/brain/contents/kenkyuchushi_jisshiyoryo_fuseikoui.pdf)

ii) Fraud in research activities

If fraud (Refers to fabrication, falsification and plagiarism.) occurs in commissioned research, we will take such measures as suspending the test and research, restricting the eligibility for application, and refunding the commissioning expenses in accordance with the commissioned contract and related regulations. Proper management is required to ensure that research activities are free from fraud.

*"Fabrication" refers to the creation of nonexistent data, research results, etc.

- *"Falsification" refers to processing data, results, and others obtained from research activities into inauthentic ones through operation of altering research materials, equipment, and process.
- *"Plagiarism" refers to diversions of other researchers' ideas, methods of analysis, data, research results, papers, or terms without the researcher's consent or proper indication.
- *"Relevant Regulations"
 - a. Ministry of Agriculture, Forestry and Fisheries: "Guidelines for Countermeasures to Fraud in Research Activities Pertaining to Research Funds under the Jurisdiction of Ministry of Agriculture, Forestry and Fisheries"

(https://www.affrc.maff.go.jp/docs/pdf/h30_fusei_guideline_20180720.pdf)

 b. BRAIN: "Implementation Guidelines for Suspension of Test and Research against Fraud in Research Activities (19 Seiken East No. 18)

(https://www.naro.affrc.go.jp/laboratory/brain/contents/kenkyuchushi jisshiyoryo fuseikoui.pdf)

- iii) Other Reasons
 - a. When the instructions of BRAIN based on the commissioned contract are violated due to reasons attributable to the consortium or any consortium member.
 - b. When the commissioned research becomes impossible or extremely difficult due to reasons attributable to the consortium or any consortium member.
 - c. When there happens fraudulent or false report, etc. pertaining to the commissioned contract, and others.
 - d. When the consortium or a member of the consortium is found to have engaged in illegal activities such as bid rigging, or when it meets the attribution requirements for the involvement of organized crime groups.
 - e. When it becomes impossible or extremely difficult to conduct the commissioned research due to reasons that can not be predicted at the time of conclusion of the contract, such as significant fluctuations in economic conditions and natural disasters.

2 Reporting and Dissemination of Research Results

(1)Reporting of research results

When contract research for each project year during the commissioned contract period ends or at the end of the commissioned contract period (Including when a commissioned research is discontinued or abolished.), the representative organization should compile the research results of the members based on the Test and Research Plan, prepare a research results report, and submit one electronic file version to BRAIN by the date separately instructed by BRAIN.

In the research results report, the details of the results obtained by conducting the commissioned research, the status of achievement of the Test and Research Plan, the status of response to the evaluation results of the previous fiscal year, information related to the publication of the results, inventions and other technical information should be accurately organized and described.

The preparation of the research results report for each fiscal year during the commissioned contract period is as follows.

- i) Each fiscal year (Excluding the final year.)
 - a. At the end of each fiscal year during the commissioning period, the representative organization shall prepare a consortium-wide research results report for the relevant fiscal year and submit one electronic file version to BRAIN in accordance with the instructions of BRAIN. The research results report may include projected results that can be reliably achieved by the end of the relevant fiscal year but should be written so that the actual results at the time of preparation can be distinguished from the projected results by the end of the fiscal year.
 - b. The representative organization shall prepare the final research results report of the relevant fiscal year, including the research results by the end of March, on March 31, reflecting the results of the deliberations and the points raised in the Board of Trustees meeting, and submit it to BRAIN by the date separately instructed by BRAIN.
 - c. A series of materials relating to the research results report shall be kept private.
- ii) Final fiscal year
 - a. Final fiscal year research results report
 - The representative organization is requested to prepare a research results report during the commissioning period for the entire consortium by the end of January of the year in which the commissioning period ends, and submit one electronic file version to BRAIN by the date separately specified by BRAIN.

The research results report may include predicted results that can be reliably achieved by the end of the commissioning period but should be written so that the actual results at the time of preparation can be distinguished from the predicted results by the end of the commissioning period.

- 2) The representative organization should report the research results for the entire commissioning period based on the research results report at the Board of Trustees meeting that evaluates the research results of the final year.
- 3) The representative organization should prepare the final version of the research results report, including the research results up to the end of the commissioning period, on March 31, reflecting the results of the deliberations and the points raised in the Board of Trustees meeting, and submit it to BRAIN by the date separately designated by BRAIN.
- 4) A series of materials related to the research results report will be kept private. In particular, the content and personal information that would be considered detrimental to patent and thesis preparation if made public will be clearly kept private when submitting the research results report.
- b. Materials for publicity of research results

Representative organization should prepare materials for public relations with descriptions that are easy for the public to understand, focusing on the research results that can be appealed to the public, and submit them to BRAIN after the commissioning period ends.

The materials will be distributed in booklets to visitors at the presentation of the research results held by BRAIN and will be made available on BRAIN website.

(2)Academic papers, journals, presentations in academic conferences, etc.

In publicizing the results of this project widely to academic conferences, the media, etc., both in Japan and abroad, we ask that the project be carried out in accordance with the policy of the Intellectual Property Steering Committee and with attention to the protection of intellectual property. Those who participate in this project are required to notify BRAIN in advance if they want to publicize the activities or results on the research project carried out in this project on their website, newspaper, book, magazine, symposium, academic conference, etc. In particular, the contents of the symposium (Similar events include workshops, study groups, etc.) and press release must be approved in advance by the PD and BRAIN in order to ensure that information is disseminated with a sense of unity as a whole for Moonshot Goal 5. In addition, the materials to be published must clearly indicate that they are activities or results related to the research agenda carried out in this project, and the published materials must be submitted to BRAIN. After the commissioning period ends (approximately five years), the publication of research results will be handled in the same manner as during the commissioning period.

i) Indication of project names

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When presenting research results, etc., clearly indicate the name of the project and that it is the research results of the project. Also, when making the oral presention, clearly indicate or dictate that it is the results of the project. If it is not clearly indicated or dictated, it will not be accepted as the results of research conducted by the project.

The name of the project, etc. shall be as follows, and these shall be used in a unified manner when presenting research results, etc.

. .

· 1/

	Project name:	Moonshot Research and Development Program for Agriculture, Forestry and
		Fisheries
		Depending on the space of the manuscript, the following descriptions are
		also possible.
		Moonshot R&D Program for Agriculture, Forestry and Fisheries
	Organization name:	Bio-oriented Technology Research Advancement Institution
	English organization ab	breviation: BRAIN
ii)	Acknowledgements	

a. In the case of a manuscript, please specify "This work was supported by Cabinet Office, Government of Japan, Moonshot Research and Development Program for Agriculture, Forestry and Fisheries (funding agency: Bio-oriented Technology Research Advancement Institution)"; or "This work was supported by Cabinet Office, Government of Japan, Moonshot R&D Program for Agriculture, Forestry and Fisheries (funding agency: Bio-oriented Technology Research Advancement Institution)." A short description of the above is acceptable only if the manuscript has character restrictions, but please indicate the research results of this project clearly.

- b. In accordance with "Description of Systematic Numbers for Research Expenses in Paper Acknowledgements, etc." (Agreement of the Liaison Committee of Relevant Ministries and Agencies on Competitive Research Expenses, dated January 14, 2020), please indicate the systematic numbers when you acknowledge a paper or submit a paper. The systematic number for this project is "JPJ009237".
- c. If there are circumstances that make it impossible to include an acknowledgment in a manuscript or if it is an oral presentation (poster presentation), the acknowledgment should be dictated. Notice in advance (or after the fact) of the publication of the contents of the research conducted
- iii) Articles and press release on research results
 - a. If you intend to submit a paper, make a presentation at a conference, or publish an article in a commercial journal, obtain the approval of the representative organization in advance, and then add the information to the "Prior (Post) Notification of Publication of Research Implementation Details" in the shared folder (*). If you have published a paper, save the paper or the journal in which the paper was published (or a copy thereof), if you have published a conference presentation, save the program and abstract of the conference presentation, and if you have published a poster presentation, save the program, abstract of presentation, and miniature printed materials of the poster in the "Appendix" in the shared folder, and contact BRAIN by email, etc. For important or urgent matters, also make a telephone call.
 - b. If the research results are to be published or reported in newspapers, television, or other media, please obtain prior approval from the representative organization and add the contents of the publication or report to the "Prior (Post) Notification of Publication of Research Implementation Details" in the shared folder and contact BRAIN by telephone, email, etc. (*) If the contents of the publication are published or reported, please save the materials identifying the contents of the publication in the "Attached Materials" in the shared folder and contact BRAIN by email, etc. For important or urgent matters, please also make a telephone call.
- iv) Literary works

Please treat like as "a." in "ii) Acknowledgements" above.

v) Holding symposiums and other events

Holding symposiums, workshops and other events related to this project in Japan, led by the PM and the Research Implementation Supervisor. In doing so, the organizer should obtain the approval of the representative organization in advance and consult with BRAIN from the planning stage, and in principle, submit to BRAIN a "Prior (Post) Notification of Publication of Research Implementation Details" (*) one month before the event, and obtain the approval of the PD and BRAIN. In addition, if the organizer wishes to use the name in co-ownership with BRAIN, the organizer should consult with BRAIN in advance, and in principle, submit an "Application for Use of Name in Co-Ownership" attached with the purpose of the meeting and the program, etc. by one month before the event, and obtain the approval of the BRAIN.

vi) Press release on research results and content of ongoing research

When members plan to make a press release on research results and content of ongoing research, they should obtain the approval of the representative organization in advance and add it, in principle, at least one week in advance to the "Prior (Post) Notification of Publication of Research Implementation Details" in the shared folder (*), save the draft press release in the "Appendix" in the shared folder and contact BRAIN by e-mail, etc., and obtain the approval of the PD and BRAIN. Important and urgent matters should also be communicated by telephone.

BRAIN may conduct press releases at the same time as its members, if necessary, in the following a.c. cases. Please submit (*) the "press release" and the "Prior (Post) Notification of Publication of Research Implementation Details" to BRAIN through the representative organization at an early date for consultation.

- a. When the research results are published as articles in a top international academic journal (Nature, Science, etc.).
- b. When the research results are expected to make a significant contribution to future trends in science and technology, society and economy.
- c. In addition to the above when a researcher desires a press release by BRAIN and BRAIN deems it appropriate.
- * Please fill out the designated file (file name: "Prior (Post) Notification of Publication of Research Implementation Details") of the web shared folder established by BRAIN in the Agriculture, Forestry and Fisheries Research Information Center and contact BRAIN by e-mail, etc. Please also make telephone contact for important or urgent matters.

For details on how to use this web shared folder, see the separate "How to use AFFRIT shared folder (for users outside the organization)." In order to enable access to this web shared folder, BRAIN will contact the representative organizations to inquire about the necessary matters for setting it up. It will then be available after BRAIN has set up the necessary matters.

(3)Outreach activities

In line with the "Promotion of Science and Technology Dialogue with the Public" (Basic Policy) (Decision of the Meeting of Ministers in charge of Science and Technology Policy and Members of the Council for Science 19. and Technology Policy, dated June 2010)" (https://www8.cao.go.jp/cstp/output/20100619taiwa.pdf) please actively engage in interactive communication activities that explain the contents and results of research activities to society and the public in an easy-to-understand manner.

In doing so, please try to improve the quality of the relevant activity by conducting a questionnaire survey on satisfaction and difficulty.

(Example)

- Dissemination of a wide range of research results information to producers, consumers, related industries, etc.
- · Special lectures in science classes at elementary, middle, and high schools
- · Lectures on research results in science or civic courses in the community

• Lectures on research results in universities and research institutes at the event of open to the public

Please describe the status of these activities in the research results report you submit each fiscal year. The results are subject to evaluation.

(4)Publication of research results organized by BRAIN

In promoting this project, BRAIN will use various events to present research results to provide the public with information on research results in an easy-to-understand manner. In addition, a presentation meeting of research results will be held in the fiscal year following the fiscal year of the end of the commissioning period, and the PM of the research project, the Research Implementation Supervisor or the researcher will present their research results at the presentation meeting.

BRAIN will contact you separately regarding the timing of these presentations and presentation methods.

BRAIN will cover the travel expenses and other expenses for the events held after the commissioned period ends.

(5)Responsibilities after the commissioned period ends

Please note that even after the commissioned period ends or the commissioned contract is cancelled, members still have the following obligations:

- i) Keeping account books, etc. (for five years)
- ii) Proper management of acquired property (until the applicable reason within the useful life expires)
- iii) Proper handling of patent rights, etc. (until the applicable reason expires)
- iv) Investigation of commissioned research (until the applicable reason expires)
- v) Measures against improper accounting and fraud in research activities (until the applicable reason expires)
- vi) Cooperation to follow-up surveys, dissemination of results, and outreach activities conducted after a certain period of time from the end of the commissioned period

(6)Follow-up surveys on results and dissemination

i) BRAIN will understand the socio-economic and academic outcomes of the research results of this project after the conclusion of the commissioned research and use them as a reference for project operations and further enhancement of research and development.

From the perspective of achieving results, a follow-up survey will be conducted and publicized on subjects for which a certain period (about three to five years) has passed since the end of the commissioned period.

Where necessary, follow-up will be conducted over a long period of time (about 10 years).

ii) When the person in charge is changed due to dissolution of the consortium, etc., the representative organization shall contact BRAIN with the contact information at the time of follow-up survey (Name, address, email address, etc., of PM and Research Implementation Supervisors in member organizations).

3 Evaluation of Research

(1)Evaluation

i) Evaluation by outside experts

The BRAIN establishes an evaluation system (the Board of Trustees meeting) by outside experts and conducts external evaluations. The evaluation is based on the evaluation items and evaluation criteria set forth in the next section, and the results are reported to the Strategic Promotion Council and the Ministry of Agriculture, Forestry and Fisheries. The evaluation is conducted every fiscal year.

ii) Evaluation items and evaluation criteria

The evaluation items and evaluation criteria are as follows from the viewpoint of evaluating necessity, efficiency, effectiveness, etc., in light of the above moonshot type research and development system operation evaluation guidelines. The evaluation is not limited to the judgement of achievement or non-achievement, but also includes analysis of the causes and factors, and proposals for improvement countermeasures. The results of the evaluation may lead to changes in the project plan, increases or decreases in R & D funds, etc., or cancellation (dismissal of the PM).

Viewpoint of evaluation: The external evaluation will be mainly based on the following viewpoints, and based on this viewpoint, BRAIN, in collaboration with the relevant government and ministries, will separately establish detailed evaluation criteria.

< Evaluation of the program >

- Validity of the portfolio for achieving MS Goals
- · Progress of research and development of programs for achieving MS Goals
- Future outlook of research and development of programs for achieving MS Goals
- Status of PD's management (Including portfolio management, direction and supervision to PMs, mobility and flexibility)
- Status of collaboration and bridging with industry (Including status of acquisition of private funds (matching), spin-outs)
- Effective and efficient promotion through international collaboration
- · Challenging and innovative initiatives based on bold ideas
- Effective and efficient use of research funds, including the division of roles between the public and private sectors and stage gates
- Initiatives related to science and technology dialogue with the public
- · Support for PD/PM and other activities of research funding agency
- < Project evaluation >
 - · Validity of project goals and content to achieve MS Goals
 - Progress toward project goals (especially compared with domestic and overseas)
 - · Future outlook toward project goals
 - Establishment of research and development system
 - Status of PM's project management (including mobility and flexibility)
 - Status of storing, sharing and publishing research data
 - · Status of collaboration and bridging with industry (Including status of acquisition of private funds

(matching), spin-outs)

- · Effective and efficient promotion through international collaboration
- · Challenging and innovative initiatives based on bold ideas
- Effective and efficient use of research funds, including the division of roles between the public and private sectors and stage gates
- · Initiatives related to science and technology dialogue with the public

(2)Handling of evaluation results

In principle, the results of external evaluations and self-evaluations will be disclosed, taking into account personal information and other information that should be protected.

BRAIN will report the results of external evaluations and self-evaluations to the Ministry of Agriculture, Forestry and Fisheries and the Strategic Promotion Council, and based on the results of the evaluations and the advice of the Ministry of Agriculture, Forestry and Fisheries and the Strategic Promotion Council, BRAIN will make decisions, in consultation with the PD, to continue, accelerate, slow down, change, or terminate the project (such as reviewing the portfolio).

When a project or part of the project is cancelled due to the review of the portfolio, BRAIN, PD, and PM will endeavor to provide necessary support so that the derived research results obtained so far can be used for other projects and research and development projects, with the support of the Strategic Promotion Council.

BRAIN will publicly announce how the results of external and self-assessments are reflected in the continuation, acceleration, deceleration, changes, and termination of the project (such as the review of the portfolio). BRAIN will also conduct a follow-up assessment after a certain period of time following the completion of R & D and follow up on the results of the adopted PM.

(3)Others

The evaluation criteria for the Feasibility Study will be determined separately. Due to PD portfolio management, opportunities such as flexible review may be provided for each PM depending on the management method in addition to the specified evaluation period.

4 Research Support Provided by BRAIN

BRAIN provides the following research support.

- (1) In consultation with the PD, BRAIN will appoint advisors, etc., including researchers in the humanities and social sciences. From the standpoint of social implementation of R&D results, BRAIN will identify promising projects (or part of projects) from an early stage and will keep in mind that the discerning function will be demonstrated to set a concrete path toward social implementation.
- (2)In response to a request from the PD, BRAIN will collect and analyze information on research and development trends in Japan and abroad and issues for social implementation of research and development results.
- (3)To ensure that the PD and PM are able to carry out their management appropriately, in response to requests from the PD or PM BRAIN will provide support such as intellectual property management, international standardization, public relations and technology trend surveys.

- (4)In order to promote international collaboration, BRAIN will conduct such activities as following up by experienced international collaborators and dispatch experts as needed.
- (5)In order for the PD to review the portfolio, BRAIN will provide necessary support upon request from the PD.
- (6)In order to gain the understanding and support of the public, as necessary, in consultation with the PD, BRAIN will provide a forum for interactive communication activities (science and technology dialogue with the public) in which PD and PMs explain research activities to the society in an easy-to-understand manner.
- (7)In order to accelerate research and development and promote social implementation, BRAIN will provide opportunities for PD and advisors to exchange ideas and other information at the request of PD.
- (8) When the PD and PM deem it necessary, BRAIN will take advantage of a subcommittee organized by the Japan Science and Technology Agency (JST) according to each support function as a specific cross-sectional support function for ELSI, mathematical science, and others. In addition, if necessary, BRAIN will provide information on research support to the PD/PM and share information with related research funding agencies.
 (9)In addition, support will be provided in response to requests from PD and PM.

IV Commissioned Contract Administration Work

1 Form of Commissioned Contract

In principle, BRAIN adopts a contract form (multi-fiscal-year contract) for this project, which enables research to be promoted more efficiently by extending the contract period to multiple fiscal years.

The purpose of this is to eliminate the blank period for commissioned research and to enable the efficient and effective use of commissioned funds, which in turn prevents fraud induced by the hardness of using commissioned funds, and to achieve the following specific objectives. For carryover to the next fiscal year, see 5 (2).

(1)To enable carryover of commissioned funds if there is a compelling reason that is not initially anticipated.

(2)To enable contracts for procurement and other matters that span multiple fiscal years since it takes a considerable amount of time from contract to delivery/acceptance inspection.

(3)To reduce cumbersome contract procedures.

2 Conclusion of Commissioned Contract

Commissioned contract shall be concluded between the representative organization and BRAIN for each consortium commissioned.

The date on which BRAIN receives the Commissioned Test and Research Implementation Plan attached to the commissioned contract is the start date of the commissioning period. For the representative organization to which the PM belongs, the start date of the commissioning period can be traced back during the research and development project period up to the date of three months before (Date of notice of adoption if the submission date of the Commissioned Test and Research Implementation Plan is within three months from the date of notice of adoption), and expenses related to research and development incurred after the start date of the commissioning period can be recorded as research expenses even before the contract date. In this case, if conditions are attached to the notice of adoption, it is assumed that the research meets these conditions, and if the contract is not concluded, it will be borne by the commissioned contract institution.

One copy of the commissioned contract should be kept at each of BRAIN and the representative

organization, and the representative organization should give a copy of the commissioned contract to all members and make them aware of the contents of the commissioned contract.

3 Partial Retention of Contract Amount

In order to ensure the effectiveness of evaluation results, and others, for each research and development project, when instructed by the PD, BRAIN shall attach conditions to part of the contract limit, and if the conditions are not met, the execution of part of the contract limit may be withheld.

In this case, BRAIN shall inform the PM of the matters pointed out by the PD as conditions, and have the PM develop a plan to eliminate the matters pointed out by the PD. The PM shall endeavor to eliminate the matters pointed out as soon as possible in accordance with the plan, and if it is determined that the issues can be resolved, the PM shall promptly contact BRAIN and explain the elimination of the matters pointed out as conditions to the PD, and others for approval. Procedures for the elimination of reservations concerning the matters pointed out shall be separately determined.

BRAIN shall not make any payment concerning the amount of such retention until it is confirmed that it has received approval from the PD. In addition, if the matters pointed out as a condition are not resolved by the end of the fiscal year, the amount of such retention for each fiscal year shall be reduced to establish the contract limit for the fiscal year, and the reduced amount shall not be carried over to the limit for the following fiscal year.

4 Changes, and Others to the Commissioned Contract

(1)Changes to the contract for subsequent years

In the next fiscal year after the conclusion of a contract, in principle, the limit of the contract for the following fiscal year is fixed based on the results of the evaluation of the research results of the previous fiscal year, and in principle, a change contract is concluded at the beginning of the following fiscal year that reflects the fixed limit of the contract.

(2) Changes to the contract from time to time

Changes to the contract from time to time is required if any of the following i) to iv) apply.

In accordance with the instructions of BRAIN, the representative organization should submit to BRAIN a Test and Research Plan in which the changes have been made with changelog.

- i) If the PD's judgment requires a review of the contract period or the limit amount of the contract fee stated in the contract.
- ii) If the consortium representative organization is changed.
- iii) If it becomes necessary to change the limit amount of commissioned expenses for the entire consortium due to an increase or decrease in the number of members or a change in the sharing of research among members.
- iv) If it becomes necessary to change the commissioned contract due to a change in the budget or policy of the Government of Japan. Or if it becomes difficult to perform a part of the contract under the conditions specified in the commissioned contract due to significant economic fluctuations or natural disasters. If such as the organization name, company name, name of representative person, address of

the representative organization is changed in the middle of the fiscal year, the "Notification of Change in the Commissioned Test and Research Implementation Plan/the Test and Research Plan" shall be promptly submitted to BRAIN and the contract for change shall not be executed. These contents shall be reflected in the commissioned contract, the Test and Research Plan, and the Commissioned Test and Research Implementation Plan when the contract for change is made in the next fiscal year or thereafter or at any time.

(3)Changes without changes to the commissioned contract

If any of the following i) or ii) apply, BRAIN will take the respective procedures and will not change the commissioned contract.

i) Changes to the Commissioned Test and Research Implementation Plan

Assuming that the changes do not affect the limit of the commissioned cost for the entire consortium, if any of the following changes are required to be made, the representative organization should submit a Test and Research Plan that has been revised with the changelog and an "Application for Approval of Changes to the Commissioned Test and Research Implementation Plan" to BRAIN for prior approval.

BRAIN reviews the content of the Test and Research Plan and the Application for Approval of Changes to the Commissioned Test and Research Implementation Plan received from the representative organization and decides whether to approve the changes.

If BRAIN approves the changes, BRAIN will notify the representative organization that it has approved the changes, so the representative organization should prepare the Commissioned Test and Research Implementation Plan revised with the changelogs and submit it to BRAIN.

- a. If the Commissioned Test and Research Implementation Plan is changed due to a request for a change in the Test and Research Plan due to PD's judgment, and so on.
- b. If the objectives and goals stated in the Commissioned Test and Research Implementation Plan are changed due to a change in the Test and Research Plan.
- c. If the research representative (PM) stated in the Commissioned Test and Research Implementation Plan is changed due to a change in the Test and Research Plan.
- d. If the "Member's Test and Research Plan" stated in the Commissioned Test and Research Implementation Plan is changed due to a change in the Test and Research Plan.
 - 1) Change, add, or withdraw members.
 - 2) Change the implementation details or share of implementation of members.

For example, if a member's Research Implementation Supervisor transfers to another member and continues to carry out the test and research that he/she was in charge of before the transfer, this is equivalent to a change in the implementation details or share of implementation of members.

3) The consortium's overall funding limit remains the same, but the research budget is reallocated among members.

For example, the research budget of a member may have to be changed due to a change in the content of the member's work or the division of work.

ii) Changes other than changes to the consignee or Commissioned Test and Research Implementation

Plan

If any of the following a. to b. apply, the representative organization should submit a "Notification of Change in the Commissioned Test and Research Implementation Plan/the Test and Research Plan" and the Test and Research Plan revised with the changelog to BRAIN in advance for a report. In order to confirm the basis for the expenditure of personnel expenses, travel expenses and wages, the representative organization may be required the submission of documentary evidence, and others separately during the performance report.

- a. If the number of postdocs and research assistants who had been set in the Test and Research Plan from the beginning is confirmed.
- b. If the Research Implementation Supervisor, researcher, research assistant, and otherrs are changed within the members.

5 Change in the Goods Purchase Plan

The equipment subject to the change are those used in the research subject of this project that have a useful life of at least 1 year and have an acquisition price of at least 100,000 yen.

When making a change to the equipment purchase plan, please follow the procedures described in (1) to (4) below, and submit the equipment purchase plan of the Test and Research Plan revised with the changelog to BRAIN through the representative organization.

If you have made a change to the equipment purchase plan, when preparing the performance report for each fiscal year, please indicate the additions, changes, cancellations, or out of coverd in the remarks column of the equipment purchase record.

(1)Additional purchases of goods not indicated in the original equipment purchase plan

When purchasing additional goods not indicated in the original equipment purchase plan, submit a "Statement of Reasons for Purchase of Equipment (Change of Plan)" to BRAIN through the representative organization and obtain prior approval from BRAIN.

BRAIN determines the appropriateness of additional purchases based on the following criteria:

- The reasons for not being included in the original purchase plan are clear.
- There is a clear research promotion effect by purchasing the additional goods.
- The goods must be used exclusively for the commissioned test and research of this project. (As a general rule, additional purchases of generally shared items are not allowed.)
- If there is an existing one, it has been confirmed that it can not be used or borrowed because it is dedicated to other research.
- There is a clear reason why it can not be handled by leasing or renting.
- As for replacement, the cost of repair has been compared with the cost of purchase, and it has been confirmed that replacement is advantageous.

(2)Change of goods purchase

When changing the goods originally planned to be purchased, submit a "Statement of Reasons for Purchase of Equipment (Change of Plan)" to BRAIN through the representative organization and obtain prior approval from BRAIN.

Even if the price becomes less than 100,000 yen by changing the goods purchase, please report the situation by submitting a "Statement of Reasons for Purchase of Equipment (Change of Plan)" to BRAIN through the representative organization without delay.

(3)Cancellation of Purchase

If you cancel the purchase of an item which you originally planned to purchase, submit a "Statement of Reasons for Purchase of Equipment (Change of Plan)" to the BRAIN through the representative organization without delay and report the situation.

(4)When the actual price is less than 100,000 yen

Even if the estimated price of the article is 100,000 yen or more in the original purchase plan, but the actual price at the time of purchase is less than 100,000 yen and the article is not subject to change, please report the situation by submitting a "Statement of Reasons for Purchase of Equipment (Change of Plan)" to BRAIN through the representative organization without delay.

6 Handling in the Next Fiscal Year and after

(1)Basic Policy

In principle, commissioned research for the next and subsequent years under a multi-year contract will continue to be conducted by the consignee in the first year determined through public call.

However, evaluations conducted at the end of each fiscal year will be reflected in the Test and Research Plan and budget allocations for the following fiscal year. If, at that time, it is deemed appropriate to discontinue or reduce research, because it is extremely difficult to achieve research goals, judging from the degree to which each year's goals have been achieved, the status of management implementation, and the possibility of commercialization, in the following year, we may reduce the commissioned funds, reduce the number of participating research institutes, terminate the contract, and so on, as well as add research institutes and research and development items while paying due attention to the handling of research results.

(2)Carryover of commissioning costs to the following year

If it becomes difficult to deliver research equipment within the planned year due to unforeseen heteronomous reasons within the commissioning period of a multi-year contract, the budget for the research equipment may be carried over to the following fiscal year only if BRAIN acknowledges the reason. If you expect to carry over the commissioned funds, consult with BRAIN in advance.

< Specific examples of reasons for carrying over due to delay >

- i) The plant of the company with which the supply contract for the parts needed for the operation of the equipment related to the research was damaged by a natural disaster, and it took longer than expected to restore the plant, resulting in a delay in the delivery of the parts, making it difficult to complete the supply contract within the fiscal year.
- ii) Some of the equipment, which was essential for conducting the original Test and Research Plan, failed and parts had to be replaced, but because the parts were custom-made, delivery took several months, making it difficult to complete the supply contract in the fiscal year.

(3)Procedures for application for approval of carryover

When research funds are to be carried over to the next fiscal year after obtaining approval from BRAIN, the representative organization must submit an "Application for Approval of carryover" to BRAIN by the end of January.

BRAIN reviews whether the contents of the Application for Approval of Carryover are particularly necessary for the execution of the commissioned research and whether the basis for calculating the amount of the application for approval of carryover is appropriate and notifies the representative organization of the approval.

If BRAIN allows carryover to the next fiscal year, the amount equivalent to the carryover will be added to the maximum amount of the commissioned funds for the next fiscal year. When a representative organization prepares a budget estimate for the next fiscal year, it is requested to submit to BRAIN with a statement in the remarks column that the amount is carryover.

V Accounting Affairs

1 Handling of Accounting Affairs, and Others

Handling of accounting affairs pertaining to contract affairs, and others shall be in accordance with the administrative procedures.

For details, please refer to the section below in the Administrative Procedures.

In Moonshot Research and Development Program for Agriculture, Forestry and Fisheries, the provisions of the Administrative Procedure "II -7 Payment of Revenue" do not apply.

(1)Structure of Commission Expense Items •••••• Administrative Procedure II -3 - (1)	- (2)	
(2)Description of Each Expense Item · · · · · · · · · · · · Administrative Procedure II -3 - (2)	-(2)	
(3)Notes on Recording Commission Expense ••••••• Administrative Procedure II -3	- (3)	
(4)Notes on Recording Commission Expense by Type and Detail • Administrative Procedure II -3	- (4)	
(5)Management of Goods and Attribution of Ownership • • • • • Administrative Procedure II -4	-(1)	
(6)Marking of Equipment, etc. • • • • • • • • • • • • • • • • • • •	- (2)	
(7)Management of Highly Cashable Goods · · · · · · · · · Administrative Procedure II -4	- (3)	
(8)Shared Use of Goods · · · · · · · · · · · · · · · · · · ·	- (4)	
(9) Transfer of Acquired Equipment, etc. • • • • • • • • • • • • • • • Administrative Procedure II -4	- (5)	
(10)Handling of Equipment, etc. after the End of the Contract Period		
••••••••••••••••••••••••••••••••••••••	- (6)	
(11)Handling of Prototypes · · · · · · · · · · · · · · · · · · ·	-(7)	
(12)Procurement of Goods · · · · · · · · · · · · · · · · · · ·	- (8)	
(13)Purchase of Shared Equipment under Multiple Research Expense Systems (combined use)		
••••••••••••••••••••••••••••••••••••••	- (9)	
(14)Purchase of Goods across Years under Multi-year Contracts • Administrative Procedure II -4 -	(10)	
(15)Appropriation of Expenses across Years •••••••• Administrative Procedure II -4 -	(11)	
(16)Inspection, Investigation, etc. of Commissioned Project • • • • • Administrative Procedure I	II -8	
(17)Payment of Commissioned Funds • • • • • • • • • • • • • • • Administrative Procedure II -1	- (4)	

(18)Efforts to Prevent Unauthorized Use •••••••••••••••••••••••••••••••••••
(19)Actions in the Event of Unauthorized Use · · · · · · · · · Administrative Procedure II -9 - (2)
(20)Responses to False Applications ••••••••••••••••••••••••••••••••••••
(21)Responses to Prevent Research Fraud ••••••••••••••••••••••••••••••••••••
(22) Actions to Prevent Fraud ••••••••••••••••••••••••••••••••••••
(23) Actions in the Event of Fraud ••••••••••••••••••••••••••••••••••••
(24)Actions Concerning Laws, Regulations and Guidelines ••••• Administrative Procedure II -12
(25)Appropriate Information Management ••••••••••••••••••••••••••••••••••••
(26)Voluntary Research Activities by Young Researchers · · · · · Administrative Procedure II -14
(27)Effort Management • • • • • • • • • • • • • • • • • • •
(28)Appropriate Calculation of Personnel Expenses ••••••• Administrative Procedure II -19
(29)Cautionary Notes on Execution of Commissioning Expenses

In the first fiscal year of the commissioned contract, expenses incurred after the start date of the commissioning period and consistent with the contents of the Test and Research Plan are subject to commissioning expenses related to testing and research.

Under the revised commissioned contract expenses from the next fiscal year, even if the contract is concluded after April 1 of the next fiscal year, expenses incurred from April 1 can be recorded as commissioning expenses on the assumption that they conform to the contents of the Test and Research Plan. However, please note that if the contract is not concluded for the next fiscal year, expenses incurred after April 1 of the next fiscal year may be borne by the consignee.

2 Responses to Laws, Regulations, Guidelines, and Others

In addition to what is described in this guideline, if research and development is conducted in violation of relevant laws, regulations, guidelines, and others, the suspension of research, cancellation of contract, cancellation of adoption, and so on may be made.

(1)Handling of personal information

Personal information provided in connection with the application will not be used for any purpose other than the selection of the organization to be adopted in order to maintain the proponent's interest, the Act on the Protection of Personal Information Held by Incorporated Administrative Agencies, and others. After the decision of the adopted organization is made, BRAIN will responsibly destroy all personal information except that relating to the adopted organization.

(For more information, visit https://www.soumu.go.jp/main_sosiki/gyoukan/kanri/kenkyu.htm.)

In compliance with this law, we may provide information (Including the provision of personal information to outsource the computer processing and management of data to an external private company.) only to the parts necessary to limit duplicate applications to other organizations involved in funding research.

Information on individual Test and Research Plan that have been adopted (Name of Test and Research Plan, research outline, name of research institution, name of researcher and research executing institution, etc.) may be disclosed as information held by gonernment agencies.

Application information on Test and Research Plan that have been adopted may also be used by BRAIN to

support research after their adoption.

Personal information included in application information will be provided to the Government Research and Development Database* of the Cabinet Office via the Cross-Ministerial Research and Development Management System of the Cabinet Office.

*Government Research and Development Database

The Government Research and Development Database is used by officials in relevant ministries to search and analyze various types of information so that the Council for Science, Technology and Innovation can centrally and comprehensively grasp the information, properly evaluate the results of state-funded research and development, and properly formulate a comprehensive strategy and allocate resources.

(2)Security Trade Management (dealing with technology leaks overseas)

It shall be according to the Administrative Procedure II -20.

(3)Response to research using overseas genetic resources

Research to acquire or use overseas genetic resources (including related traditional knowledge) must comply with the Convention on Biological Diversity (CBD), the Nagoya-Protocol, the Food and Agricultural Plant Genetic Resources Convention (ITPGR), and the relevant laws and regulations of the country providing the genetic resources and must be conducted appropriately in accordance with Japan's domestic measures (ABS* Guidelines). For more information on the national contact point, ABS Guidelines, CBD, and ITPGR for supporting ABS measures, please visit the following website:

National Institute of Genetics ABS Academic Response Team <u>http://idenshigen.jp/</u> National Institute of Biological Resources, Bioindustry Association

https://www.mabs.jp/index.html

Ministry of Environment (ABS Guidelines) <u>https://www.env.go.jp/nature/biodic-abs/consideration.html</u> Convention on Biological Diversity (CBD) <u>https://www.cbd.int/</u>

Food and Agricultural Plant Genetic Resources Convention (ITPGR)

https://www.fao.org/plant-treaty/en/

** ABS: Access and Benefit-Sharing

(4)Response to Animal Experiments, and others

When conducting animal experiments, and others using animal species specified in the "Basic Guidelines for the Conduct of Animal Experiments, and others at Research Institutions, etc. Under the Jurisdiction of the Ministry of Agriculture, Forestry and Fisheries" (the Director General's Notice of the Technical Council for Agriculture, Forestry and Fisheries, dated June 1, 2006*), it is necessary to ensure that animal experiments, and others are conducted properly in accordance with the said Basic Guidelines and the related laws and regulations indicated in the said Basic Guidelines.

(For more information, please visit https://www.maff.go.jp/j/kokuji tuti/tuti/t0000775.html.)

(5)Precautions on the introduction and removal of biological resources from/to overseas

i) Basic approach

In conducting research, exchange of experimental materials, and others is assumed in addition to exchange with overseas researchers.

Some of these products may fall under the category of products prohibited for export or import of harmful plants, and others, and some of them may require action based on domestic laws and regulations such as the Plant Protection Act. In addition, the cross-border movement of biological resources requires compliance with the Convention on Biological Diversity (CBD), and further, the import and export of genetically modified organisms require action in accordance with the Act on Conservation of Biological Diversity through Regulation of the Use of Genetically Modified Organisms (Act No. 97 of June 18, 2003 (Cartagena Act)).

Especially in CBD, all living organisms other than humans are subject, and when using genetic resources, it is necessary to obtain the consent of the country that provides the genetic resources in advancey (note that it is the state, not researchers or research institutions) and it provides that the benefits arising from the utilization of genetic resources should be shared fairly and equitably. Therefore, when introducing biological resources from overseas or taking them overseas, please be careful to conduct research in accordance with the relevant laws and regulations of not only Japan but also countries concerned.

- ii) Reference information
 - a. Major domestic laws concerned (Customs Act, Plant Protection Act, Domestic Animal Infectious Diseases Control Act, and others)
 - Customs website: List of Competent Laws (including amendments)
 - (<u>https://www.customs.go.jp/kaisei/hourei.htm</u>)
 - Plant Protection website: Basic Notice

(https://www.maff.go.jp/pps/j/law/houki/basis_index.html)

- · Animal Quarantine website: Related Laws and Regulations
- (<u>https://www.maff.go.jp/aqs/hou/index.html</u>)
- Customs website: Summary of export related laws and regulations to be checked at customs (<u>https://www.customs.go.jp/tetsuzuki/c-answer/extsukan/5501_jr.htm</u>)
- b. Inport prohibited goods information
 - · Customs website "Prohibited and Controlled Items"
 - (<u>https://www.customs.go.jp/mizugiwa/kinshi.htm</u>)
 - Plant Protection website "Database on Import Conditions"
 - (http://www.pps.go.jp/eximlist/Pages/exp/condition.xhtml)
 - Animal Quarantine website "Import Prohibited Areas and Goods" (<u>https://www.maff.go.jp/aqs/hou/43.html</u>)
- c. Export prohibited goods information
 - · Customs website "Export Prohibited and Regulated Goods"
 - (https://www.customs.go.jp/mizugiwa/kinshi.htm)
 - Plant Protection website "Detailed information on import and export conditions of each country" (<u>https://www.maff.go.jp/pps/j/search/detail.html#kakkoku</u>)

- · Animal Quarantine website "Information on import and export suspension measures"
- (<u>https://www.maff.go.jp/aqs/topix/teishijoho.html</u>)
- d. CBD-related information
 - · Center for Biological Diversity, Ministry of Environment website "Biodiversity"
 - (<u>https://www.biodic.go.jp/biodiversity/</u>)
 - Bio-Industry Association website "Guide to Access to Genetic Resources" 2nd edition (March 2012)
 - (<u>https://www.mabs.jp/archives/pdf/iden_tebiki_v2.pdf</u>)
 - Bio-Industry Association website "Guide to Access to Genetic Resources Domestic Procedures" Edition 1 (March 2018)
 - (https://www.mabs.jp/archives/sochi/pdf/gr-access.pdf)
- e. Genetically Modified Organisms (LMO) Related Information
 - Biosafety Clearinghouse website "Cartagena Law Related Information"
 - (<u>https://www.biodic.go.jp/bch/bch_2.html</u>)
 - "Procedures for Imports and Exports"
 - (https://www.biodic.go.jp/bch/download/law/import_export_flowchart.pdf)

3 Cooperation to the Bioscience Database Center

The Bioscience Database Center (<u>https://biosciencedbc.jp/</u>) was established in April 2011 at the Japan Science and Technology Agency (JST) to promote the integrated use of life science databases created by various research institutes.

In addition to encouraging the active participation of related institutes, the center promotes the integration of life science databases based on four pillars: planning strategies, building and operating a portal site, research and development of basic technologies for database integration, and promotion of bio-related database integration. Through this, it is hoped that the results of life science research in Japan will be widely shared and utilized by the research community, thereby invigorating the whole field of life science research, including research and development that leads to basic research and industrial application research.

In this regard, you are asked for cooperation in providing the Center with copies of raw data related to the results published in life science research papers, and so on, or copies of public databases that have been constructed.

The provided copies shall be available for reproduction, alteration or other necessary use on a non-exclusive basis.

In addition, upon the request of the institution from which the copies were provided, you may be requested cooperation in providing information necessary for the use of the copies.

< Contact >

Bioscience Database Center, Japan Science and Technology Agency TEL:+81-3-5214-8491

4 Support for Young Researchers and Effective and Efficient use of Research Funds

(1)Support for diverse career paths for young postdoctoral researchers

"Basic Policy on Support for diverse career paths for young postdoctoral researchers employed with public research funds of jurisdiction of the Ministry of Education, Culture, Sports, Science and Technology" (December 20, 2011, Human Resources Committee, Council for Science, Technology and Academia)

(https://www.mext.go.jp/b_menu/shingi/gijyutu/gijyutu10/toushin/1317945.htm):

You are required to "Actively support public research institutes and research representatives who employ young postdoctoral fellows with public research funds to ensure diverse career paths for them in Japan and abroad." In light of this, when a young postdoctoral researcher is hired through public research funds (Competitive funds, other project research funds and publicly funded educational research funds for universities) that have been adopted by this project, you are asked to actively support the relevant researchers to secure diverse career paths.

(2)Employment of postdoctoral students as research assistants (RAs), and others

In the 6th Science and Technology Basic Plan, "In order to improve the treatment of outstanding doctoral students, the number of doctoral students receiving an amount equivalent to the cost of living will increase by 3 times from the previous level (equivalent to about 70% of the number of students advancing from master's programs) by the 2025 fiscal year." is set as a numerical target.

(https://www8.cao.go.jp/cstp/kihonkeikaku/6honbun.pdf)

In this project, it is also possible to register as a researcher such as RA (Research Assistant) in the second semester of the doctoral program (student), and it is possible to pay the researcher fee in this project.

In addition, the second semester of the doctoral program (student) that handles confidential information learned through this project must have an agreement with the university organization that has a contract with BRAIN, including confidentiality obligations, and all persons directly engaged in this project must register as a researcher.

VI Handling of Results, Intellectual Property Rights, and Others

In addition to the provisions set forth below, intellectual property rights will be exercised in accordance with the handling of III Outcomes and Intellectual Property Rights in the administrative procedures.

1 Sharing Intellectual Property Rights with Foreign Institutions

When foreign research and development institutions participate in the project, as described in "7. Handling of intellectual property rights, and others" of the "Guidelines for the Operation and Evaluation of Moonshot Type Research and Development Systems" (February 4, 2020 Director General for Science, Technology and Innovation, Cabinet Office, Director General for Science, Technology and Academic Policy, the Ministry of Education, Culture, Sports, Science and Technology, Executive Director of the Council for Agriculture, Forestry and Fisheries Technology, the Ministry of Agriculture, Forestry and Fisheries, and Director General for Industry, Technology and Environment, the Ministry of Economy, Trade and Industry), at least 50% of the shares of the foreign institutions in intellectual property rights obtained through the implementation of research shall belong to BRAIN.

2 Handling of Research Results

(1)Effective use of research results

If the IP Committee deems it necessary for effective use of research results, exchange of information on unpublished and unapplied research results between consortiums may be requested. At this time, the parties shall enter into a confidentiality agreement and take measures to prevent information leakage.

(2)Data Management

Data management shall be conducted in accordance with the "Basic Policy on Data Management in BRAINcommissioned Moonshot Research and Development Project"

(3)Treatment of research results

Participants in this project are required to handle research results with the following in mind.

- i) Appropriate licenses should be granted for developed technologies, even if they are patented.
- ii) Know-how to be concealed from research results should be identified and properly managed from the perspective of further upgrading of developed technologies, and improvements should be made to such know-how through the accumulation and analysis of examples of intellectual property rights.
- iii) When private companies, and others utilize research results, information should be provided as easyto-understand results.

(4)Use of e-Rad (Cross-Ministerial Research and Development Management System) Information, and others BRAIN will utilize information on adopted research subjects, including information stored in e-Rad, for analysis of research topics, and so on, in cooperation with relevant ministries and funding agencies. The results of the analysis may be made public except for personal information.

VII Form of Submission

Each form is posted on BRAIN website. Please refer to the website address below.

• Form of Guidance for Office Processing Procedures https://www.naro.go.jp/laboratory/brain/contents/common_form/index.html

In addition, inquiries about the said procedures can be made to the following email address:

• General inquiries

In charge of Moonshot Research and Development Program for Agriculture, Forestry and Fisheries, BRAIN

E-mail:seiken-moonshot@ml.affrc.go.jp

 Inquiries about contract work Research Management Division, Research Management Department, BRAIN E-mail:seiken-moonshot@ml.affrc.go.jp