**Proposal for Moonshot R&D project**

**[Feasibility Study]**

**(How to Complete the Form)**

[Form 1] The Moonshot Goal you aim to achieve

[Form 2] An overview of the R&D project

[Form 3] Proposal for R&D project (within 7 pages)

[Form 4] Plans for promoting the R&D project and budget plans (within 2 pages)

[Form 5] Proponent management ability (within 2 pages)

[Form 6] Information related to conflicts of interest

[Form 7] Application status, efforts, and acceptance of other research funds

[Form 8] Human rights protection and managing the observance of laws

[Appendix to Form] Performer candidate information sheet (within 1 page per performer)

[Instructions for filling in the proposal for projects]

* Do not exceed the specified page count for each form.
* Always use 10-point font or larger for the body text.
* You can use drawings and tables as necessary in [Form 3] to [Form 7].
* Erase the instructions for filling in the forms which are shown in blue before you submit the forms.
* Remove this sheet (the cover page of the instruction about how you fill in the form) before you submit the form.
* The file size should be roughly 3MB or smaller.
* You are not allowed to change documents after the deadline.

Proposals that do not follow the instructions above will not be accepted and not be adopted.

**[Form 1] The Moonshot Goal you aim to achieve**

Moonshot Research and Development

– Proposals for R&D projects【Feasibility Study】

R&D Project “(Project Name) ”

Proponent (Project Manager): (PM’s Name)

Proponent’s Affiliation and Post: Professor, Department of XX, XX University

|  |
| --- |
| The MS Goal this proposal aims to achieve |
| Select one MS Goal you aim to realize in this proposal.[ ]  MS Goal 8: "Realization of a society safe from the threat of extreme winds and rains by controlling and modifying the weather by 2050."[ ]  MS Goal 9: "Realization of a mentally healthy and dynamic society by increasing peace of mind and vitality by 2050." |
|  |
| Checklist on each MS Goal |
| MS Goal 8 | Once you have looked over “R&D Concept“ and “PD’s Supplement”, please select the R&D approach(es) that will be included in the proposed R&D project from among those below (you may select more than one approach).[ ] Meteorological approach　[ ] Engineering approach　[ ] ELSI research　[ ] Mathematical science studies |
| MS Goal 9 | Once you have looked over “R&D Concept” and “PD’s Supplement”, please select the R&D approach(es) that the proposed R&D project will target from among those below (you may select more than one approach).However, you may not select “Application in society” alone. [ ]  Understanding mechanisms of the mind　[ ]  Mental status transitions[ ]  Application in society |

**[Form 2] An overview of the R&D project**

|  |
| --- |
| **1. Title of the R&D project** |
| Describe the title of the R&D project you propose. |
| **2. An overview of the R&D project you propose (within 225 words)** |
| Describe an overview of the R&D project you propose (within 225 words including marks and signs). |
| **3. Keywords** |
| Write the keywords that express the feature of the R&D project you propose (five or less). |
| **4. The R&D funds needed (total budget until the end of the project)** |
| ●●●million yen (direct cost) \*The same amount as Form 4. |
| **5. Information on the proponent (PM)** |
| Your Full Name: |
| e-rad Researcher Number: Fill in the 8-digit researcher number assigned from the Cross-ministerial R&D Management System (e-Rad). |
| Information on the proponent in researchmap etc.URL:Author ID:\*Describe the URL if there is a website containing the information on the proponent (the webpage of an office at his or her organization, a page on researchmap, etc.) or describe the ID if the researcher ID of ORCID ID or Web of Science or the author ID on SCOPUS is known. |
| Nationality/Gender: | Date of Birth: |
| Affiliation/Post: |
| Address/Boarding: |
| Emergency contact information for interview selection (e.g. cell phone number): |
| **6. Educational Background and Work Experience of the Proponent** |
| Educational Background (the university you graduated from and the other academic institutions after)Examples:Year: Graduated from xx University, Department of xxYear: Graduated from xx School of xx, Department of xx, majored xxYear: Graduated from xx School of xx, Department of xx, majored xxYear: Ph.D. of xx (xx University)Work experienceExamples:Year – year: xx Company, xx Department (developed xx)Year - year: Project Associate Professor, xx University (involved in the study of xx)Year – year: xx Company, xx Department (in charge of xx project) |
| **7. Effort for the management of the R&D project** |
| The ratio of the time for the management activities in the R&D project you propose: ●●％\*If the PM participates also as a performer, describe the ratio of the time for the research and development activities in another form. |
| **8. Leader’s institutions and the status of their arrangements** |
| As stated in the application guidance, section 4.1.2, if a proponent is adopted as a PM, he or she is supposed to support the PM activities as the "leader’s institution." Describe the name of the candidate for the leader’s institution in Japan and the status of the agreement on accepting the post of the leader’s institution. If, however, you are not able to designate your leader’s institution within three months of being selected in principle, then the adoption could be canceled. \*\*If PM does not choose the present institution as the leader’s institution, the deadline will be six months later after the adoption.Candidate for the leader’s institution: (example) xx University (or, xx Corporation)The status of the agreement with the candidate for leader’s institution: [ ]  Done, [ ]  Being arranged, [ ]  Not arranged (Select one.) (If you selected “Done”) Post and name of the person responsible for the institution with whom you have made an agreement: (example) Dean/President \*\* \*\* |
| **9. Information on the candidate for the major performer** |
| Describe the major performer candidates’ affiliations and posts with respect to those who are essential for implementing the R&D project instructed by the PM. (Describe the details in "Appendix to Proposal, Performer Candidate Information Sheet." If you do not have a major performer, please just write “no performer” in this section.(Examples of description)Performer Candidate 1: Name, organization and postPerformer Candidate 2: Name, organization and post |

**[Form 3] Proposal for R&D project**

**\*Describe within seven pages in Form 3.**

**Please make sure you reference “R&D concept” and “PD’s supplement”**

**when writing your application, not just this form.**

**1. Contribution to the achievement of the MS Goal**

Please describe the targets you aim to achieve when the proposed R&D project is completed (achievement targets) in terms of the key components to achieve the MS Goal, organize and state the main issues and bottlenecks of the targets as a whole, and then give an explanation of these.

**2. Targets to be achieved when the R&D project is complete**

Please state your achievement targets, both from a general point of view and from an R&D point of view, for when the specified R&D is complete (no later than 3 years after the adoption). In both cases, the term “achievement targets” does not refer to the number of papers or academic reports.

(1) Achievement targets from a general point of view

Please describe “what kind of scientific results will be generated, in the form of targets that are easily comprehensible to the general public.”

(2) Achievement targets from an R&D perspective

Please describe “achievement targets that express R&D outcomes in a way that can be understood quantitively and that can be also validated.” The achievement targets will be used as indicators for evaluations by PDs once the R&D project commences.

**3. The content of the R&D project**

Please explain, in as much detail as possible, the specific content of the proposed R&D project, which will achieve the targets stated in 2. Budget amounts for each R&D item and annual plans should be included in Form 4. When writing your explanation, please include evidence for the likelihood of you reaching the “Achievement targets from an R&D perspective,” such as the outcomes of past research.

**4. The challenge level of the proposed R&D project, and its superiority when compared to existing research**

Please explain how the proposed R&D project is challenging. Please also describe its originality based on bold ideas and how this is challenging, especially if it includes scientific and/or technological content.

**5. R&D organization chart**

Please illustrate the organization of the R&D in the R&D project stated in 3., from the perspective of how key R&D items will be allocated to drive the R&D. When creating this chart, you can mention the names of assumed performer candidates, but the program will not commit to any plans or R&D funds based on what is written on the application form. These will be confirmed through elaboration on the R&D project (please see sections 4.2 and 4.3 of the application guidelines). See the diagram below for reference.



**[Form 4] Plans for promoting the R&D project and budget plans**

**\*Describe within two pages in Form 4.**

**1. Plans for the promotion of the R&D project**

　Describe specific plans for promoting the "R&D project" described in [Form 3]. Filling in this proposal form does not mean that you are promised to receive the funds and to implement R&D as you are planning. The above-mentioned will be determined in the course of refining on the R&D project. (See sections 4.2 and 4.3 of the application guidelines.)

Describe the overview of the R&D items, the period of implementation, and the R&D cost of the R&D items (from the adoption of the PM up to the end of the project; direct cost) for each of the major R&D items.

Note that the description given for the “R&D Items” should be aligned with that in “3. The content of the R&D project” in [Form 3]. Through the R&D period can be a maximum of 3 years after adoption of PM, the below chart should be modified in case you assume a shorter R&D period than 3 years.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| R&D Item | R&D Cost | FY 2022 | FY 2023 | FY 2024 |
| R&D of XX | XX |  |  |  |
| R&D of YY | XX |  |  |  |
| R&D of ZZ | XX |  |  |  |

(R&D cost until the end of the project (no later than FY2024) should be direct costs, unit: million yen)

**2. Yearly plans for research and development cost**

Describe the rough amount of your R&D cost.

Through the R&D period can be a maximum of 3 years after adoption of PM, the below chart should be modified in case you assume a shorter R&D period than 3 years.

 (unit: million yen)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Fiscal Year | 2022 | 2023 | 2024 | Total |
| R&D cost(direct cost) | X.X | X.X | X.X | X.X |

**3. Major equipment to be purchased**

If you are planning to purchase equipment or conduct outsourcing that costs 5 million yen or more per item, itemize the name of the equipment, a rough estimation of the expenditure, and the year when you want to purchase it.

(Examples)

Name of the equipment: xxxxxx

Rough estimation of the expenditure: xxx thousand yen (Desired year of purchase:zzzz)

Name of the equipment: yyyyy

Rough estimation of the expenditure: xxx thousand yen (Desired year of purchase:zzzz)

\*After the adoption is determined, in the course of the refining of the R&D project by the PM, the plans for the purchase, operation, sharing of the applicable facility should be brushed up. In addition, from the viewpoint of the effective and efficient implementation of each R&D project implemented in this program, some arrangements may be made for the facility to be purchased with the direction of the PD in cooperation with the sub-PD and the advisors.

**[Form 5] Proponent management ability**

**\*Describe within two pages in Form 5.**

**\*Please see also “Nature as PM” of “3.7 Viewpoints in selection” in the application guidelines, when filling in this form.**

**1. Experience and achievement as they pertain to the management ability of the proponent**

Itemize your experiences and achievements in the management of R&D projects, business applications, etc. in an easy-to-understand way. If you have no experience or achievements to describe, write "None.”

 If you have been a representative for any other research fund systems, list the title of the R&D project, the research cost, and the evaluation of it afterwards for major examples. See the example in the following table.

(Examples of description) Copy the following table if you need to describe two or more examples.

|  |  |
| --- | --- |
| Title of the fund system | Research base formation system by Ministry of xx |
| Period(fiscal year) | Fiscal year - fiscal year |
| Subject of research | The new xx science on the observation of yy developed by using zz |
| Research cost (direct cost) | xxx million yen |
| Results of the evaluation of the completed research | S) An excellent result was achieved; a significant contribution was made to the promotion of the use of xx. |

Describe the details of the roles and contributions of the proponent in any business application achievements. Include an overview of the business (the details of the business, results of order-taking and sales, etc.) in the description.

**2. Achievements in information exchange and collaboration with people from a wide range of fields**

Include specific examples in your description so that we can see your ability to communicate with researchers and relevant parties in and outside the country. Show that that you have networks with experts across the fields of academia and industry and the ability to collect information.

**3. The proponent’s plans for the implementation of the R&D project management**

<From adoption to the start of R&D>

Please describe the policies you would use when elaborating on the project following your selection: how would you determine content that was uncertain or lacking at the application stage, so you can take the project to the start of R&D?

<During the R&D period>

In the feasibility study, you will focus on certain elements of the R&D needed for it to achieve its targets; please write what kind of initiatives you would like to undertake, including any collaboration with other core research or feasibility studies, with a view to development after the completion of the R&D project.

**4. Promote yourself and your application**

Please offer a detailed statement in your own words, with specific anecdotes such as how you came up with the content of the proposal; promotion of any of the various achievements, development capabilities, special skills, etc. of the proponent and/or major performer candidates; what the proponent and/or the major performance candidates wish to do in the future; and how this content is relevant to this proposal. In addition, please explain the reasons you believe that the proponent is qualified as a PM who will promote the management of the R&D project (see 1.1.3 of the application guidelines for PM activities), with reference to the specific experiences, past work, and achievements of the proponent themselves.

**[Form 6] Information on conflicts of interest**

Information on a PD and sub-PD’s conflicts of interest

Select whether the proponent has any shared interests with the PD or sub-PD that correspond to the MS goal you have selected. If there are shared interests, describe the content of them specifically. For a fair and transparent evaluation, the PD or the sub-PD who has a shared interest with the proponent will not participate in the selection processes with respect to the applicable proponents.

If it is confirmed that the requirements of a relation of interest are met between the proponent and the PD and no declaration is made from the proponent to JST, we may take measures, including not adopting the project or canceling the project, unless JST recognizes appropriate reasons for the omission.

If the name of the sub-PD is not open to the public at the time of submission of your proposal, there is no need to notify JST regarding shared interests with the sub-PD.

Select whether the proponent has a shared interest with the PD who oversees the MS goal you selected. [ ]  Yes [ ]  No \*Select one.

Provide a specific description if you answered, "Yes." ;

Select whether the proponent has a shared interest with the sub-PD who oversees the MS goal you selected.

[ ]  Yes [ ]  No \*Select one.

Provide a specific description if you answered, "Yes." ;

The definition of a proponent who has a shared interest is as follows. For a shared interest with the sub-PD, please replace “PD” with “sub-PD” when reading the following. If any of these apply, please respond with “yes”.

1) A person who is a relative of the PD

2) A person who belongs to the same department or major, or the like as the PD at a university, college, or R&D organization of a national research and development corporation or the like or to the same enterprise as the PD

3) A person who engages in a close joint R&D project with the PD. This refers to, for instance, conducting a joint R&D project, coauthoring a research paper, being members of an R&D project for the same purpose, or being joint researchers tasked with a problem from the PD, or practically belonging to the same R&D group as the PD.

4) A person who is closely associated with the PD as a teacher or student or they have a direct employer-employee relationship

5) A person who is in an academically competitive relationship with the PD‘s R&D project or who belongs to an enterprise that is in a competitive relationship in the market

In the application form, shared interests with the PD or the sub-PD should be described. As stated in the section 3.6.2 in the application guidelines, you may be questioned at interview about shared interests between PM and performers, PM and PM-related institutions, PM and JST-invested companies. Also, you may be required to submit additional materials regarding those kinds of shared interests.

**[Form 7] Application status, efforts, and acceptance of other research funds**

The proponent should describe the competitive funds of the national government or any other research aid the proponent is currently participating in, has applied for, or is applying for. Include the title of the project, the period of implementation, the role, and the amount of the research funds you receive, your efforts, and the like. In addition, provide an overview of your activities other than research and the effort.

Please list this in order of the amount of research funds received (largest first; however, list this program first, regardless of the monetary amount).

Regarding “Affiliation and post at time of application”, please describe your affiliation and title when applying for the research budget. As for "Effort," describe the ratio (percent) of the time which will be allocated to proponent's R&D projects listed below in tables(1)(2)(3) to the time for all tasks in one year (not only the time for research and management activities but also the time for profitable business and non-profitable activities, education, medical activities, etc.); it should total 100 percent.

If the proponent is planning to be involved in the R&D project as a performer in addition to managing the project as a PM, please also fill in the effort allocated to the R&D as a performer.

\*See section 5.3, "Measures for Irrational Duplications and Extreme Convergences." and section 5.34, “Ensuring Research Integrity Among Research Institutions.” When applying, the call of FY2021 is made based on the fact that the "Integrated Innovation Strategy2020" stipulates that "disclosure of information on the status of acceptance of foreign funds is a requirement when applying for research funds." Therefore, it is clarified that research funds from overseas should also be entered in the form of "whether or not there is other support" (or "status of application / acceptance of research funds, etc." depending on the R&D program). In addition to competitive funds, both domestically and internationally, please list all research funds such as grants from private foundations, contract research expenses from companies, and joint research expenses.

\*If description is different from the fact, the adoption may be canceled later.

\*Correct this form and contact our inquiry office shown at the end of this application form via email if any change arises in the content described in this form. For example, an application you filed and/or an application you plan to file for a research subsidy or the like is adopted or rejected while your proposal in this R&D project is still in the selection process.

\*If you are selected as an applicant and invited to our interview-based review, we may ask you to submit the application form, the plans, and the like for other research funds.

(Example of description) Add or delete rows in the table if necessary.

Regarding “Affiliation and post at time of application”, please describe your affiliation and title when applying for the research fund.

**Proponent’s Name**: xxxx xxxx

(1) The research fund you have applied for (Direct Cost)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Title of the fund system/research fund (research period/name of the organization providing the fund)** | **Title of the project****(Name of the representative)** | **Role****(Classification of representative, Co-principal investigator, etc.)** | **Affiliation and post at time of application**  | **Direct cost in the fiscal year 2021****(Total direct cost for the whole period)** | **Effort****(%)** |
| 1 | [This proposal]Moonshot research and development |  | Representative(PM) |  |  | XX |
| 2 | Moonshot Research and Development | The Name of the project to be involved in as Performer(PM’s Name)\*If the proponent is planning to be involved in the R&D project as a performer, please fill in.Also, please also fill in the effort allocated to the R&D as a performer. | Performer |  |  | 20 |
| 3 | Science research budget:Subsidy Fundamental research (S) (April 2020 -March 2024) | The creation of xx by yy(xxxx) | Co-PrincipalInvestigator | Professor, Graduate School of \*\*, \*\*University | 3 million yen(10 million yen in total) | 5 |

● Research project(s) for which you have applied, the relationship with the R&D project proposed for this program, and the differences

 Please explain the relationship between any research projects to which you have applied and this proposal, and the differences between them, referencing serial numbers as necessary. This is not necessary if you have not applied to anything other than this program.

(2) The research funds to be received (Direct Cost)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Title of the fund system/research fund (research period/name of the organization providing the fund)** | **Title of the** **project****(Name of the representative)** | **Role****(Classification of representative, Co-principal investigator, etc.)** | **Affiliation and post at time of application**  | **Direct cost in the fiscal year 2021****(Total direct cost for the whole period)** | **Effort****(%)** |
| 1 | Science research budget:Subsidy Fundamental research (S) (April 2020 -March 2024) | The creation of xx by yy(xxxx) | Co-PrincipalInvestigator | Professor, Graduate School of \*\*, \*\*University | 3 million yen(10 million yen in total) | 5 |

● Research project(s) for which you are receiving research budget, the relationship with the R&D project proposed for this program, and the differences

 Please explain the relationship between any research project(s) for which you are receiving budget and this proposal, and the differences between them, referencing serial numbers as necessary.

(3) Other activities

|  |  |  |  |
| --- | --- | --- | --- |
| **Organization** | **Post** | **Activity** | **Effort****(%)** |
| XX Corporation | Director (Part-time) | Deliberation on business plans, business operation plans | 3 |
| yy Corporation | Advisor | Guidance on R&D projects | 2 |

**[Form 8] Human rights protection and managing the observance of laws**

Review Chapter 5, "Instructions for applicants" of the application guidelines, and ensure that you understand the laws, ordinances, and guidelines that you should observe with respect to the project you propose and confirm that what you have formulated aligns with such regulations; when you do, check the check box (□).

|  |
| --- |
| (Examples of the laws, ordinances, and guidelines you should observe)[ ]  "Guidelines for Responding to Misconduct in Research" (decision, Minister of Education, Culture, Sports, Science, and Technology, August 26, 2014; including the revisions after)[ ]  "Guidelines for the Management and Audits of Public Research Funds at Institutions" (standard for implementation), enforced on February 15, 2007; decision, Minister of Education, Culture, Sports, Science, and Technology, February 18, 2014; including the revisions after)"[ ]  The laws and ordinances, ministerial ordinances, and notifications as well as the Foreign Exchange and Foreign Trade Act (Foreign Exchange Act) so that the achievements of state-of-the-art research are not transferred to any party that may perform any activity for possible military purposes, such as develop weapons of mass-destruction, or to terrorist groups with respect to security trade control (the measures for leaking technology overseas.[ ]  The laws of relevant countries if you are to be engaged in on-site activities overseas (including collecting biological resources) and/or in joint activities with overseas research institutions.[ ]  The laws and ordinances, ministerial ordinances, and ethics guidelines concerning life ethics and security with respect to the research and/or activities related to life science |

　Check the following box when you have reviewed the laws, ordinances, and guidelines that you should observe when making a proposal.

[ ]  **I have reviewed the laws, ordinances, and**

**guidelines that I should observe.**

**[Appendix to Form] Performer candidate information sheet**

**(within one page per performer)**

Copy this page for each performer candidate. Fill it in for candidates whom the proponent thinks are essential for the implementation of the R&D project proposed here (\*This sheet needs to be submitted even when the proponent will also act as a performer.)

Filling in this proposal form does not mean that you are promised to receive the funds for the planning and/or the R&D project or that the applicable performer will be allowed to participate.

**"Performer Candidate Information Sheet" (One page or less per person)**

|  |  |
| --- | --- |
| **Assigned R&D Item** | R&D of XX |
| **Full name of the performer candidate** |  |
| **Affiliation and Post** |  |
| **Evaluation of the performer candidate and his/her achievements in R&D** |
| 1) Describe concisely the reason why you think the applicable performer is the most preferable to oversee the applicable item to be performed.2) Describe five especially important achievements in the field to which the performer candidate is to be assigned in order to give grounds for the above-mentioned.Itemize up to five achievements of importance, if any, in any relevant review paper, book, award, patent, invitation lecture, or presentation at an international institution. Underline the name of the performer if there are two or more authors or presenters. |
| **Role and Period of Participation** |
| The status of the agreement from the candidate to participate in the project | [ ]  Done, [ ]  Being arranged, [ ]  Not arranged (Select one.) |
| Effort for the project | (The ratio of the time for the activities in the R&D project in whole work hours）％ |