# **Proposal for R&D project (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] The Scenario to Achieve the Moonshot Goal

 [Form 4] Proposal for R&D project
 [Form 5] Plans for Promoting R&D projects and Budget Plans

[Form 6] Proponent Management Ability

[Form 7] Items Implemented by PM for Refining

[Form 8] Information Related to Conflicts of Interest

[Form 9] Status and Efforts of Application for Research Funds and Acceptance

[Form 10] Human rights protection and managing the observance of laws

[Form 11] "Letter of Recommendation"
[Appendix to Form] Performer Candidate Information Sheet

*[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 2] to [Form 6].
* 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.

Proponents who do not observe the instructions above will not be adopted and their proposals will not be accepted.

Moonshot Research and Development – Proposals for R&D projects

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

|  |
| --- |
| The MS Goal this proposal aims to realize |
| *Select one MS Goal you aim to realize in this proposal.*[ ]  MS Goal 1: "Realization of a society in which human beings can be free from limitations of body, brain, space, and time by 2050."[ ]  MS Goal 2: "Realization of ultra-early disease prediction and intervention by 2050."[ ]  MS Goal 3: "Realization of AI robots that autonomously learn, adapt to their environment, evolve in intelligence and act alongside human beings, by 2050."[ ]  MS Goal 6: " Realization of a fault-tolerant universal quantum computer that will revolutionize economy, industry, and security by 2050." |
|  |
| Checklist on each Goal*Describe about the goals you select above.* |
| MS Goal 1 | *Select what is applicable to the contents of your proposal from the following goals. (You can select two or more.)*[ ]  Cybernetic avatar base[ ]  Cybernetic avatar life |
| MS Goal 2 | *Confirm that it is necessary to include both approaches in your proposal at MS Goal 2. (You should contain both content for the proposal)*[ ]  Molecular cytological, biochemical, physiological approaches[ ]  Approach from AI or other mathematical data analysis technology and mathematical modeling |
| MS Goal 3 | *Select what is mainly applicable to the contents of your proposal from the R&D groups below. (You can select two or more.)*[ ]  The AI robot that does not cause discomfort to men, does have the physical ability equivalent to men or higher, and does grow together close to human lives[ ]  The AI robot system that thinks and acts on its own and aim to proactively find the scientific principles and solutions[ ]  The AI robot that makes judgment on its own in the environments where it is difficult for men to act and autonomously acts and grows. |
| MS Goal 6 | *Select what is applicable to the contents of your proposal from the categories below. (Select one.)*[ ]  Hardware[ ]  Communication network[ ]  Theory, software |

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

|  |
| --- |
| Title of the R&D project |
| *Describe the title of the R&D project you propose* |
| 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)* |
| Keywords |
| *Write the keywords that express the feature of the R&D project you propose (five or less).* |
| The research and development funds etc. you want(total budget for the five years (2020-2024) after a PM is adopted) |
| ●●●million yen \*The same amount as Form 5. |
| Information on the proponent (PM) |
| Your Full Name: |
| Nationality/Gender: | Date of Birth (Gregorian calendar): |
| Institution/Post: |
| Address/Boarding: |
| Educational Background and Work Experience of the Proponent |
| ・Educational Background (the university you graduated from and the other academic institutions after)*Examples of description)**Year: Graduated from xx University, Department of xx**Year: Graduated from xx School of xx, Department of xx, majored xx**Year: Graduated from xx School of xx, Department of xx, majored xx**Year: Ph.D. of xx (xx University)*・Work experienceExamples of description)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) |
| Effort for the management of the R&D project |
| The ratio of the time for the management activities to the others 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. |
| PM’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 "PM’s institution."**Describe the name of the candidate for the PM’s institution and the status of the agreement on accepting the post of the PM’s institution.**If this is not yet determined, you are asked to acquire an agreement from the PM’s institution until the refining is finished after the adoption.**Candidate for the PM’s institution: xx University, School of xx (or, xx Corporation,xx Business Head Office, xx Business Department)**The status of the agreement with the candidate for PM’s institution:* [ ]  *Done,* [ ]  *Being arranged,* [ ]  *Not arranged (Select one.)* |
| Information on the candidate for the major performer |
| *Describe the person, his or her organization and post, and the assignments (in 80 characters or less including marks and signs) with respect to the person who is essential for implementing the R&D project you propose among the candidate for performers (the persons who implement the contents of the assignments for the research and development in the R&D project as instructed by the PM)**(Describe the details in "Appendix to Proposal, Performer Candidate Information Sheet."**If this is yet to be determined, describe "TBD."**\*As to MS Goal 2,the project should include 2 approaches, one is “1) molecular cell/ biochemical/physiological approaches" and the other is “2) approaches using mathematical data analysis techniques such as AI and mathematical modeling”. Describe at least 1 performer for each approach, and which approach he/she is in charge of for “assignments”.* *(Examples of description)**Performer Candidate 1: Name, organization and post, assignments (describe within 80 characters including marks and signs)**Performer Candidate 2: Name, organization and post, assignments (describe within 80 characters including marks and signs)**Performer Candidate 3: Name, organization and post, assignments (describe within 80 characters including marks and signs)* |
| Researcher Number of the Proponent | *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 homepage 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.* |

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

**[Form 3] The Scenario to Achieve the Moonshot Goals**

**1. The scenario to reach the accomplishment of the MS goals in year 2050 from the current starting point in this proposal**

Describe the scenario to reach the accomplishment of the MS goals in year 2050 from the current starting point in this proposal with appropriate goals in specific years.

(1) The scenario for reaching the achievement of the MS goal (from the year 2030 to 2050)

(2) The scenario for reaching the achievement of the MS Goals (from present to the year 2030)

*\*Describe the present to 2030 and 2030 to 2050 separately.*

*\* For the present to 2030, summarize item 5, "The Contents of the R&D project You Propose" in [Form 4]*

*\*Explain how this proposal corresponds to the R&D concept and MS goal you chose.*

*\*Discuss the impact on industries and society of the achievement of the MS goal and the estimated time you will achieve the goal.*

**2. The major problems that should be overcome to reach the achievement of the MS goal in 2050**

Describe the major problem that should be overcome and why you should solve it to achieve the MS goal.

Describe major problems that should be overcome in the field of science and technology, in terms of social acceptance, regulations, social economy, and so forth, which may present barriers to the realization and/or spreading of the achievement.

*(Examples of description)*

*(2-1) Problems in science and technology*

*Problem 1) Technology xx: the development of the xx technology that enables xx by xx*

*<Plans for Measures> To anticipate significant improvement in its accuracy by applying xx in the xx field to the xx technology*

*Problem 2) xx system: To construct the xx system to provide the xx service in the field of xx*

*<Plans for Measures> To advance xx by accelerating the link between corporations in the xx field and the xx service for verification*

*Problem 3) Efficient application of xx: the efficiency of xx is currently xx percent, which needs to be improved to xx percent or higher*

*<Plans for Measures> To significantly improve the efficiency by concentrating on xx, accumulating data, using AI, and applying it to xx*

*(2-2) Problems in society*

*Problem 1) The approval and permission system of xx: the international regulation of the approval and permission system for xx has not yet been determined; forming a framework for an international agreement is necessary.*

*Problem 2) Developing an understanding among the residents of xx region: To implement xx, providing an explanation to and acquiring an understanding from the residents of zz are necessary to use the xx region.*

**3. Conventional endeavors for achieving MS goals and overcoming problems**

Describe the reason why you think previous endeavors have struggled to solve the "problem to be overcome." Explain why the achievement of the MS goal in 2050 is difficult by discussing two or more endeavors that have been performed in and outside the country to solve the "major problem to be overcome" (Item 2 above).

*\*Describe the measures for the problems in the field of science and technology and the measures for the social problems.*

*\*Explain why the field of specialty and the occupational experiences of the proponent are not limited.*

*\*Mention references or the like that can offer the grounds for verification, if necessary.*

*\*Make sure to mention the endeavors made by parties other than the proponent.*

*\*See the examples below and itemize your description so that the evaluators will understand your explanation.*

*(Examples of description)*

*1) Example of endeavor 1: the research and development of xx and its implementation in society*

*Overview: To improve xx and yy, the major technology of zz, to spread xx to the xx percent of the world*

|  |  |
| --- | --- |
| *Major problems to be overcome* | *Problems facing conventional endeavors**(The reasons why you think the achievement in or before 2050 will be difficult)* |
| *●Scientific and technological problems**・To enhance the efficiency of xx from yy to zz**・To enhance the performance of xx from yy to zz* | *・As opposed to the enhancement of the performance of xx, the development of yy is necessary, and zz trillion yen is necessary for zz years.**・The enhancement of the performance of xx is difficult theoretically (Abcd,20xx).* |
| *●Social problems**・Situating xx so that it can be accepted by general consumers**・Conformity to the yy system* | *・xx acceptance in the world is about yy according to a test calculation; according to a reference (Efgh,20XX), these endeavors will produce about zz of xx around the year 2050, which is unacceptable at in the market.**・For the conformity to xx system, the solution to the yy problem above is necessary. In addition, zz, the international association, opposes revising the system; therefore, it is difficult to persuade them.* |

*Reference)*

*Abcd,E., XXXXXXXXX,Journal of XX, pp.x-x, 20XX*

*Efgh,A., XXXXXXXXX,Journal of XX, pp.x-x, 20XX*

*2) Example of endeavor 2: Spreading xx technology*

*(Examples of description)*

|  |  |
| --- | --- |
| *Major problems to be overcome* | *Problems facing conventional endeavors**(The reasons why you think the achievement in or before 2050 will be difficult)* |
| *●Scientific and technological problems**...* | *...**...* |
| *●Social problems**...**...* | *...**...* |

**4. Measures for solving the "problem to be overcome" in this proposal (concept)**

　Describe the measures (concept) for solving the "problem to be overcome" (Item 2 in this form) in this proposal

*\*Provide a hypothesis for the solution based on scientific grounds or the like.*

*\*Include references or the like that can give grounds for verification, if necessary.*

|  |  |
| --- | --- |
| *Major problems to be overcome* | *Measures for the solution (concept)* |
| *●Scientific and technological problems**...**...* | *...**...* |
| *●Social problems**...**...* | *...**...* |

*Reference)*

*Abcd,E., XXXXXXXXX,Journal of XX, pp.x-x, 20XX*

*Efgh,A., XXXXXXXXX,Journal of XX, pp.x-x, 20XX*

**5. The adequacy of the scenario of the proponent**

Describe why the scenario of the proponent, compared with the conventional endeavors mentioned in Item 3, is better suited to achieve the MS goal in 2050.

*\*Explain the adequacy of this scenario and why it should be used for the implementation despite the difficulty of achieving the MS goal by 2050 with conventional endeavors; compare the conventional scenario with the proponent’s scenario.*

*\*Give reasons from the field of science and technology and society.*

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

**[Form 4] Proposal for R&D project**

If the proponent is adopted as a PM, he or she will manage the R&D project for achieving the MS goal in 2050. The proponent should specify the milestones in the third, fifth, and tenth years starting from the time of the adoption as a PM. The milestones are quantitative targets that can be verified based on the "scenario."

In the following sections, describe the R&D project that the proponent expects to reach.

**1. The milestone for the tenth year from your adoption as a PM and the reason for the specification**

**(1) The milestone for the tenth year from your adoption as a PM**

*Backcasting the accomplishment of the MS goal in 2050 and, based on the scenario, describe the milestones (can be plural) as the quantitative targets that can be verified, the accomplishment of which you aim at in the tenth year from the adoption as a PM.*

**(2) The reason for the specification of the applicable milestones**

*Explain your specification of the milestones so that the positioning of the scenario and the necessity of them are understandable.*

**2. The milestone you aim to reach in the fifth year from your adoption as a PM and the reason for the specification**

**(1) The milestone you aim to reach in the fifth year from your adoption as a PM**

*Backcasting the accomplishment of the MS goal in 2050 and, based on the scenario, describe the milestones (can be plural) as the quantitative targets that can be verified, the accomplishment of which you aim at in the fifth year from the adoption as a PM.*

**(2) The reason for the specification of the applicable milestones**

*Explain your specification of the milestones so that the positioning of the scenario and the necessity of them are understandable.*

**3. The milestone you aim to reach in the third year from your adoption as a PM and the reason for the specification**

**(1) The milestone you aim to reach in the third year from your adoption as a PM**

*Backcasting the accomplishment of the MS Goal in 2050 and, based on the scenario, describe the milestones (can be plural) as the quantitative targets that can be verified, the accomplishment of which you aim at in the third year from the adoption as a PM.*

**(2) The reason for the specification of the applicable milestones**

*Explain your specification of the milestones so that the positioning of the scenario and the necessity of them are understandable.*

**4. The problems to be overcome in the R&D project**

Name the five problems (or more) that should be overcome in this R&D project for the accomplishment of the "milestones in the third year from the adoption as a PM," the "milestones in the fifth year from the adoption as a PM," and the "milestones in the tenth year from the adoption as a PM" and give a specific explanation of the contents also based on the quantitative expressions.

*Mention the positioning of the "scenario" and the significance of your management of the problem in this R&D project.*

**5. The Content of the R&D project You Propose**

Refine the scenario to the achievement of the "milestones in the third year from the adoption as a PM," the "milestones in the fifth year from the adoption as a PM," and the "milestones in the tenth year from the adoption as a PM."

*Show measures for the solutions based on the scientific background for the problem mentioned in Item 4 above and give a specific, concise explanation about how you will try to achieve the milestones.*

*Explain how the R&D project you propose is a unique, bold concept and whether you have sufficiently considered how to hedge the risk presented by the difficulty of solving the problem to be overcome.*

**6. The Ripple Effect of the R&D project**

*Describe what accomplishments are produced for each step at the time when the R&D project you propose accomplishes the "milestones in the fifth year from the adoption as a PM," the "milestones in the fifth year from the adoption as a PM," and the milestones in the tenth year from the adoption as a PM" and, in addition, describe what ripple effects (impact) will be brought to the academe, industries, or society.*

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

**[Form 5] Plans for Promoting the Research and Development Projects and Budget Plans**

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

　　Describe specific plans for promoting the "R&D project" described in [Form 4]. Filling in this proposal form does not mean that you are promised to receive the funds for the planning and/or the R&D or that the applicable performer will be allowed to participate. 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 guidance.)

*Describe the overview of the assignments, the candidates for performers, the period of implementation, and the R&D cost of the assignment items (from the adoption of the PM up to the fifth year; including indirect cost) for each of the major assignment items.*

*(Examples of description)*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *Assignment Item* | *FY**2020* | *FY**2021* | *FY**2022* | *FY**2023* | *FY**2024* | *FY**2025* | *FY**2026* | *FY**2027* | *FY**2028* | *FY**2029* |
| *[Title of the R&D project]* |  |  |
| *1. Research and development of xx**(Assignment:**Performer Candidate:**xxxx)* |  |  |  |  |  |  |  |  |  |  |
| *2. Development of the xx mechanism**(Assignment:**Performer Candidate:**TBD)* |  |  |  |  |  |  |  |  |  |  |
| *3. Integration of xx and yy, systematization/social implementation test**(Assignment:**Performer Candidate:**xxyy)* |  |  |  |  |  |  |  |  |  |  |

**2. Yearly Plans for Research and Development Cost**

Describe the rough amount of your R&D cost. (Unit: 100 million yen)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Fiscal Year | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 - 2029 (total \*) |
| R&D cost (including indirect cost) | *X.X* | *X.X* | *X.X* | *X.X* | *X.X* | *X.X* |

\* The period of R&D project is 5 years, in principle. The project will be evaluated in 3rd year, and may be changed(increased/decreased) or finished according to its result. And in addition to the evaluation in 3rd year, the project will be evaluated in 5th year and when PD need to do. In all cases, the project may be changed(increased/decreased) or finished according to its result. If the expansion of project over 5 years, the duration will be 10 years at maximum.

\*For the ratio of the indirect cost, see section 4.6.2, "Indirect Cost."

**3. Major Equipment to Be Purchased (20 million yen or more per piece, the name of the equipment, a rough estimation of the expenditure)**

If you are planning to purchase equipment that costs 20 million yen or more per item by the fiscal year end of 2023, itemize the name of the equipment, a rough estimation of the expenditure, and the year when you want to purchase it.

*(Examples of description)*

*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 external experts as advisors etc.*

*\*Describe within two pages in Form 6.*

*To complete this form, see the application guidance, section 3.7, "Viewpoints in Selection,① The nature of being a PM."*

**[Form 6] Management Ability of the Proponent**

**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 problem, 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 thousand 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. The reason why you well-suited to be a project manager (PM) in this program**

Include the core skills of your management ability to describe why you think you are suitable for the management of a long-term, challenging theme *such as an MS goal to be achieved in 2050.*

*(For instance, core skills can include leadership, intuition, problem-solving, decision-making, and influence over people via communication.)*

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

Describe the ideas about what point should be strengthened to take management (data management, industry-academia cooperation, liaison, international cooperation, science and technology dialog with citizens, etc.) of the R&D project you propose in consideration to the experiences of the management in the past of the proponent him- or herself, including the details and the ideas of the implementation for the enhancement.

*See the examples below and itemize your description so that it will be easy to understand.*

*Example of description*

|  |  |
| --- | --- |
| *Content that should be strengthened* | *Ideas on the implementation* |
| Ability to imagine a strategy for the business application of the research results | *To xx yy for zz.* |
| The expertise in the field of *xx* research | *To xx yy for zz.* |
| Activities for the management of research data | *To xx yy for zz.* |
| Activities for industry-academia cooperation and liaison | *To xx yy for zz.* |
| Activities in relation to international cooperation | *To xx yy for zz.* |
| Activities for science and technology dialogs with citizens | *To xx yy for zz.* |
| If none of the above apply, please explain them. | *To xx yy for zz.* |

*Write "None" if you do not think there is nothing that should be strengthened for implementing the R&D project.*

**4. 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.

*Describe the proponent’s achievements in information exchange and collaboration with people from a wide range of fields.*

\**Describe within two pages in Form 7.*

**[Form 7] What Are Implemented by the PM for Refining**

*The PMs, when adopted for Moonshot R&D, with the direction by PDs in cooperation with the advisors as external experts, refine the R&D projects.*

*(For the refining, see the application form, section 4.2, "PMs to Refine R&D projects" and section 4.3, "PMs to Implement R&D projects.")*

*Describe what you think the PM should do presently in terms of the items below.*

**1. Realizing the Plans for the Promotion of R&D projects in the Refining Phase**

Describe how the proponent will determine and prepare the content that cannot be determined as of present to promote the R&D project ([Form 4] and [Form 5] and explain the proponent's ideas for the implementation.

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

|  |  |
| --- | --- |
| Content that needs to be determined and prepared | *Ideas for the implementation* |
| *To select performer candidates who can advance the research of xx* | *To hold workshops to find prospective young researchers* |
| *To look for an optimal method for approaching the problem of xx* | *To conduct a survey on trends in the technology in and outside the country on the research on xx to solve the problem yy and narrow possible methods for approaching it* |
| *The place of the verification test using a public road has not been determined in the development of the technology for driving cars.* | *To assume the using of the xx special zone system in yy prefecture and zz prefecture and to collaborate with the sector of the local government in charge to form plans for a verification test.* |

**2. The proponent's ideas for the construction of the organization to support PM activities by the PM’s institution in the refining phase**

Describe the necessary content and the implementation by the proponent about what support organization will be constructed at the PM’s institution to ensure the execution of the ideas of the implementation described in Item 3 of [Form 6], which refers to the ideas of the proponent for the implementation of the R&D project management.

*Describe how you will determine and prepare the contents that cannot be determined presently or that are insufficient at the time of refining as well as the proponent's ideas for the implementation.*

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

|  |  |
| --- | --- |
| Content that needs to be determined and prepared | *Ideas for the implementation* |
| *Optimal management organization for the budget execution to each R&D institution* | *To xx yy for zz.* |
| *To hire personnel to oversee technical support for the PM* | *To xx yy for zz.* |
| *To assign a professional to conduct outreach and who has sufficient knowledge in the field of xx* | *To xx yy for zz.* |
| *An organization to support turning intellectual property into rights and engaging in standard development* | *To xx yy for zz.* |

*If you think that an optimal organization has already been established to support PM activities, show the organization for supporting the PM and describe why you think it is sufficient.*

**[Form 8] Information on Conflicts of Interest**

1. Information on a PD’s Conflicts of Interest

Select whether the proponent has any shared interests with the 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 who has a shared interest with the proponent will not participate in the selection processes with respect to the applicable proponents.

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."

*The definition of the applicable person who has a shared interest is as follows.*

*1) A person who is related to the PD*

*2) A proponent who belongs to the same department or major at a university, college, or a research and development organization or national corporation, or enterprise as the PD*

*3) A person who engages in a close joint R&D project with the PD or a person who has participated in a close joint R&D project within the past five years. This may refer to conducting a joint project, coauthoring a research paper, being members of a R&D project for the same purpose, or the joint researchers of any other research and development problem of the PD, who belongs to the same research and development group as the PM*

*4) A person who has been closely related to the PD as a teacher or student or who has been in a direct employer-employee relationship for ten years in total in the past*

*5) A person who is in an academically competitive relationship with the research and development activities of the PD or who belongs to an enterprise that is in the same competitive market*

*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.*

**2. Information on conflicts of interest with the performer candidate**

If there is a relation of interest between the proponent and the candidate of a performer described in "Performer Candidate Information Sheet" (Appendix to Form),

specifically describe the contents and write the applicable item number in the "Conflicts of Interest with the Proponent" column in "Performer Candidate Information Sheet" (Appendix to Form).

*The definition of an applicable person who has a relation of interest is as follows.*

*1) If the PM is a performer candidate*

*2) A person who is a relative of the performer candidate*

*3) A person who belongs to the same department, major, or the like as the proponent at a university, college, or research and development organization of a national research and development corporation or to an enterprise that is the same source of a second form of employment or originally hired the performer candidate*

*4) A person who engages in a close joint R&D project with the performer candidate. This may refer to conducting a joint project, coauthoring a research paper, being members of a R&D project for the same purpose or the joint researchers of any research and development problem of the PM, who belongs to the same research and development group as the PM*

*5) A person who has been closely related to the performer candidate as a teacher or a student or who has been in a direct employer-employee relationship*

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

*In consideration to the aim of Moonshot R&D, which is to gather the wisdom of a variety of researchers such as the top researchers, young and senior researchers in and outside the country, the conflict of interests with the proponent are not judged from a uniform standard to expel them from the projects without exception. Even when a proponent and a performer candidate share a conflict of interest, their participation in the project is not necessarily blocked if the necessity and rationality of their presence are recognized for the project.*

**[Form 9] Application Status, Effort, and Acceptance of Other Research Funds**

The proponent should describe the competitive funds of the national government or any other research aid (including private funds and overseas organizations) 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 the business other than research and efforts.

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."

\*If a 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 systems.

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

Full Name: xxxx xxxx

(1) The research fund you have applied for

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 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.) | Cost in the fiscal year 2020 \*1(Amount for the whole period) | Effort(%) | The reason why you applied for this program other than the research funds\*2  |
| [This proposal]Moonshot research and development |  | Representative(PM) |  |  |  |
| *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.* | *Performer* |  | *\*3* |  |
| *Science research budget:**Subsidy**Fundamental research (S)* *(April 2020 -**March 2024)* | *The creation of xx by yy**(xxxx)* | *Co-Principal**Investigator* | *100 thousand yen**(x.xx billion yen in total)* | *5* | *For xxxx* |

(2) The research funds to be received

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 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.) | Cost in the fiscal year 2020 \*1(Amount for the whole period) | Effort(%) | The reason why you applied for this program other than research funds\*2  |
| *JST Strategic Basic Research Program - CREST**October 2019 – March 2024)* | *The highly functional application of xx by yy**(xxxx)* | *Co-Principal Investigator* | *140,000**thousand yen (x.xx billion yen in total)* | *5* | *For xxxx* |

(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 |

\*1. The direct cost

\*2. You do not need to fill in this table if you have not applied to any programs other than the Moonshot Research and Development.

\*3. 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.

**[Form 10] Human rights protection and**

**the management of the observance of laws etc.**

　Review Chapter 5, "Instructions for Applicants" of the application form, 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.**

*If possible, submit the letter of recommendation. It should describe the reason why the proponent is well-suited to be a project manager (PM) of a long-term, challenging theme, such as the achievement of an MS goal in 2050. We may interview the persons who have written the letters of recommendation and/or contact them by telephone, via email, or other means.*

**[Form 11] "Letter(s) of Recommendation" and "the Contacts of Recommenders"**

*It is not obligatory to submit letters of recommendation. Also, if you are going to, it is not obligatory to submit letters with both of the formats- No.1 and No.2.If several letters with format No.2 are necessary, please copy the format.*

*Each letter of recommendation must be one page or less on A4 size paper.*

|  |  |  |  |
| --- | --- | --- | --- |
| *No.* | *Letter of recommendation written by* | *Requirements in relation to the description* | *Language* |
| *1* | *The "head" of the institution that is expected to be the PM’s institution (the institution the proponent belongs to)* | *The reason why he or she is recommended as a PM for the Moonshot Program* | *In Japanese or English* |
| *2* | *An appropriate person who belongs to the institution overseas* | *Including a description in relation to the evaluation of "the leadership and communication skills" necessary to promote the project of the applicant* | *English* |

Letter of Recommendation (No.1)

|  |  |
| --- | --- |
| Name of Recommended Person |  |
| Institution/Post |  |
| Reason for Recommendation |
| (1) Describe the reason why he or she is recommended as a PM in the Moonshot Program(2) Other special remarks |
| The "head" of the institution that is expected to be the PM’s institution (the institution to which the proponent belongs) |
| Name of Recommended Person |  |
| Institution/Post |  |
| Contact of the Recommender | (Tel)(Fax)(e-mail)(Personnel) *\*Specify if the contact is not the recommender but another person* |

Recommendation（No.2）

|  |  |
| --- | --- |
| Recommendation for Mr./Ms. |  |
| Title: |  |
| (1) Reasons to be recommended as Project Manager for the Moonshot Project \* Please include a rating for his or her "leadership and communication skills"(2) Other remarks, if necessary. |
| Your Name |  |
| Title |  |
| ContactInformation | (Tel)(Fax)(e-mail)(Person in charge) *If the contact person is not the recommender, fill in.* |

*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.)*

**Appendix to Form**

*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)

|  |  |
| --- | --- |
| Description of Assignment | *Research and development of xx* |
| Full Name |  |
| Institution 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 important achievements, 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 |
| *Describe these points so that the positioning of Item 5, "The Contents of the R&D project You Propose" of [Form 4], will be clear.* |
| 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）％ |
| Conflict of interest with the proponent (\*) | 　　[ ]  No　　　[ ]  Yes (The item(s) of the conflict of interest applicable: *1), 2), 3)**(Select either one. If you select "Yes," write the number(s) of the applicable item(s) in section 2 of [Form 7].)* |

Note \*: For "conflict of Interest," see [Form 8], "Information on Conflicts of Interest.