FY2022

RISTEX R&D Programs

Solution-Driven Co-creative R&D Program for SDGs (SOLVE for SDGs)

: Preventing Social Isolation & Loneliness and Creating Diversified Social Networks

Call for R&D Proposals

[Application Guidelines]

Application Call Period

April 5 (Tue.) ~ Noon (12:00, Japan time) on June 8 (Wed.), 2022

Note: This translation is provided as a reference material. If there is any discrepancy between this translated version and the original Japanese version, the original Japanese version prevails.

Research Institute of Science and Technology for Society (RISTEX)
Japan Science and Technology Agency (JST)
April 2022

RISTEX R&D Programs
“Solution-Driven Co-creative R&D Program for SDGs (SOLVE for SDGs)
: Preventing Social Isolation & Loneliness and Creating Diversified Social Networks”

Overview of the FY2022 Call for R&D Proposals

The main schedule for call for R&D proposals and selection (FY2022) is as follows. Please note that the submission deadline differs from other programs. Furthermore, the schedule is subject to change in the future, so be sure to confirm the latest information on the specified website.

RISTEX “Call for R&D Proposals” website:

https://www.jst.go.jp/ristex/proposal/proposal_2022.html

Applications will be made through the Cross-ministerial R&D Management System (e-Rad) (Please refer to “4.6 Application Method.” Applications by paper, postal mail, express parcel delivery and/or email will not be accepted).

e-Rad will experience higher than normal volume near the application deadline. As a result, applicants may find it difficult to complete submission procedures depending on the work and application environment of the proposal. Please give yourself adequate time for submission. A withdrawal of an application through e-Rad after the deadline cannot be processed. JST will not accept proposals for which the application process has not been completed in e-Rad by the deadline for any reason.

The title and affiliation of the applicant in e-Rad should match that provided in the R&D proposal. Please note that the application of a R&D proposal uploaded to e-Rad will not be accepted if it contains defects making the review of the proposal difficult. “A defect making the review of the proposal difficult” refers to omission of proposal application forms, character corruptions that make it difficult to read, and omissions of important items on the application forms.

Furthermore, JST is not responsible for any defects in a R&D proposal that may occur before the submission deadline, regardless of whether the proposal was received or not. As such, all R&D

proposal applicants must understand that JST will not modify the R&D proposals with prior confirmation from the applicants or request the applicant to make any revisions to their R&D proposals before the R&D proposal submission deadline.

■ Selection Schedule

Call begins	April 5 (Tue.), 2022
Briefings of solicitation	April 12 (Tue.), May 10 (Tue.) 2022 Online Meeting Details will be posted on the proposal application website. （https://www.jst.go.jp/ristex/proposal/proposal_2022.html）
Application deadline *1	Noon (12:00 p.m., Japan time) on June 8 (Wed.), 2022 (No delays accepted)
Document screening period	Mid-June – July 2022 (planned)
Notification of document screening results	Notice will be provided at least one week prior to the interview screening(planned). Those eligible for the interview will be asked to prepare and submit a “presentation video,” “presentation slides,” and “answers to the questions for the interview selection process” prior to the interview screening.
Interview screening *2	August 1 (Mon.) and 2 (Tue.), 2022 (planned)
Candidates interview with the Program Supervisor	August 17 (Wed.) and 18 (Thu.), 2022 (planned)
Notification and announcement of selection results	Late September, 2022 (planned)
Start of research and development	Early October, 2022 (planned)

*1 Deadline for submitting applications through the Cross-ministerial R&D Management System (e-Rad).

*2 Interview screening will be held online using Zoom, etc. Proposers may be asked to participate in a connection test prior to the interview.

■ Other Considerations

a. Proposers eligible for the interview after document screening will be notified in writing and

informed regarding the guidelines for the interview, date and time, and additional documents to be submitted. During the interview, the Proposer (Principal Investigator) will be asked to explain the concept of his/her R&D project.

b. The Principal Investigator will be notified of the results of document screening and interview screening regardless of if they are accepted or not.
c. In addition to the above, please make sure that your e-mail address and phone number registered in the e-Rad are available for receiving and sending, as JST may contact the Proposer.
d. Proposers must have completed the educational program on research integrity at the time of proposal application. For details, please refer to “4.5 Requirements for Application” and “6.1 Enrolling in and Completing the Educational Program on Research Integrity.”

■ SOLVE for SDGs “Scenario Creation Phase, Solution Creation Phase,” and “Preventing Social Isolation & Loneliness and Creating Diversified Social Networks (Social Isolation Framework)”

To achieve the SDGs, RISTEX has been conducting two types of activities, the Scenario Creation Phase, and the Solution Creation Phase, under the title “Solution-Driven Co-creative R&D Program for SDGs (SOLVE for SDGs)” since fiscal 2019 as an R&D program aiming to create immediate solutions to regional issues with complex and wide-ranging themes by utilizing existing technology seeds and to expand the solutions to other regions. Since social isolation and loneliness is one of the essential perspectives of the SDGs, in FY2021, RISTEX has established a particular framework (Social Isolation Framework) under the SOLVE for SDGs program, “Preventing Social Isolation & Loneliness and Creating Diversified Social Networks” (hereinafter referred to as “this program”) and started research and development. The following are the features of the “Social Isolation Framework” and the “Scenario Creation Phase, Solution Creation Phase.” For details, please refer to each call for R&D proposal.

＜Social Isolation Framework＞

The program on the prevention of social isolation and loneliness will be conducted in collaboration with the sites where policies are implemented, such as specific regions, schools, workplaces, and communities, etc. in Japan, from academic research using knowledge of the

humanities and social sciences (HSS), etc., such as understanding the causes and mechanisms of social isolation and loneliness, and producing a new image of society, to visualization and evaluation methods (indicators, etc.) for the risk of social isolation and loneliness, development of measures to prevent social isolation and loneliness, and their Proof of Concept (PoC).

＜Scenario Creation Phase, Solution Creation Phase＞

This project aims to create solutions (business concepts, business plans, etc.) to specific real social issues faced by the local communities, not limited to “Prevention of social isolation & loneliness,” through collaboration between the Principal Investigator and the collaborators who face the social problems in the local region area, and by utilizing existing technology seeds. It is a prerequisite that they already have technology seeds to be used for solving social issues.

When submitting a proposal, please carefully check the application guidelines for the Call for R&D Proposals. We Are Waiting for Your Application.

CONTENTS

Chapter1. Introduction to the Call for R&D Proposals

1.1 Overview of RISTEX R&D Programs

The Research Institute of Science and Technology for Society (RISTEX) of the Japan Science and Technology Agency (JST) seeks to create new social and public value through solving specific social problems. By building networks of stakeholders and R&D participants who engage in solving social problems, and promoting research and development (R&D) that makes use of knowledge in natural sciences, humanities and social sciences (HSS) under a competitive environment, we aim to obtain outcomes that will lead to practical solutions to problems in the actual society and to promote utilization of obtained outcomes in wider society.

In the JST RISTEX R&D Programs, RISTEX sets up R&D Focus Areas and Programs (referred to as “Focus Areas and Programs”) which it considers important in solving social problems, calls for proposals and promotes those selected as R&D projects.

The management of Focus Area and Program is performed by the Program Supervisor with the cooperation of Program Advisors. Principal Investigators and R&D participants conduct R&D within the institutions with which they are affiliated under the Program Supervisor’s management.

○ **Program Supervisor**

The Program Supervisor performs management of the Program as the person responsible for the operation of R&D that contributes to achieving the program targets.

○ **Assistant Program Supervisor**

The Assistant Program Supervisor is delegated by the program supervisor to act on behalf of some of the Program Supervisor's roles.

○ **Program Advisor**

The Program Advisor provides appropriate advice to the Program Supervisor from an expert perspective.

The Program Supervisor, Assistant Program Supervisor, and Program Advisor monitor the progress of the project through site visits, etc., and provide guidance and advice while respecting the independence and autonomy of the R&D team. They also conduct project selection, approval of R&D

plans, and post-evaluation. In addition, project activities and results will be made public to provide opportunities to promote networking and to incorporate external opinions.

○ **Principal Investigator**

The Principal Investigator represents the project and has overall responsibility for the project. The Principal Investigator performs suitable management of implementation of R&D and appropriately manages the outcomes and overall R&D expenses of the project with R&D institution.

1.2 For Researchers Considering Applying for or Participating in the Programs

1.2.1 Contribution to the Accomplishment of Sustainable Development Goals (SDGs)

JST to contribute to the accomplishment of SDGs!

At the “United Nations Sustainable Development Summit” held in September 2015, “Transforming our world: the 2030 Agenda for Sustainable Development” was unanimously adopted; the document was an achievement with “SDGs” at the core as a further comprehensive and new action target common to the world for the human beings, the Earth, and the welfare. The seventeen goals in the SDGs do not only indicate various problems in relation to the sustainability that is facing the humankind but also demand that those problems be solved comprehensively and in an integrated way. It is expected that scientific and technological innovation solves such social problems, and that scientific evidence is provided to contribute to the formulation of excellent policies. We can say that these roles conform to “the science in the society and the science for the society,” a new task of the science that was declared in “World Declaration on Science and the Use of Scientific Knowledge” (Budapest Declaration*), adopted at International Council for Science in 1999. As a core organization to promote the science and technology policies in Japan, JST promotes advanced fundamental research and works on the research and development of a problem-solving type to meet the requests from the society. SDGs are one of the worldwide objectives that can itemize all JST missions. We, in the course of the JST programs, want to collaborate with industries, academia, government agencies, and private enterprises and cooperate with researchers to realize a sustainable society.

President, Japan Science and Technology Agency (JST)

*The Budapest Declaration states that “science for knowledge,” “science for peace,” “science for development,” and “science in society and science for society” are the responsibilities, challenges, and obligations of the science in the 21st century.

○ For SDGs, the endeavors of JST, etc., access the following website.

https://www.jst.go.jp/sdgs/en/actionplan/index.html


SUSTAINABLE DEVELOPMENT GOALS
1 貧困をなくそう
2 飢餓をゼロに
3 すべての人に健康と福祉を
4 質の高い教育をみんなに
5 ジェンダー平等を実現しよう
6 安全な水とトイレを世界中に
7 エネルギーをみんなにそしてクリーンに
8 働きがいも経済成長も
9 産業と技術革新の基盤をつくろう
10 人や国の不平等をなくそう
11 住み続けられるまちづくりを
12 つくる責任つかう責任
13 気候変動に具体的な対策を
14 海の豊かさを守ろう
15 陸の豊かさも守ろう
16 平和と公正をすべての人に
17 パートナーシップで目標を達成しよう

1.2.2 **Promotion of Diversity**

JST Promotes Diversity!

The diversity is essential requisite for promotion of scientific and technological innovations. It is possible to open a new perspective of science and technology by the collaboration and discussion with various stakeholders having different specialties and values, irrespective of gender and nationality.

JST is, by promoting advances in diversity in its all activities in science and technology, undertaking possible problems of our future society, contributing to the strengthening of industrial competing power of Japan as well as to the enrichment of spiritual happiness of people. Our activities in this field accord with the “Sustainable Development Goals (SDGs)” agenda of the United Nations, in which goals relevant to diversity advancement are shown, including gender equality, contributing to efforts on our domestic problems but also to those on problems common to various countries.

Currently, the activity of woman is being positioned at the core of the Growth Strategy of the Japanese Government, being started as “the largest potential of Japan” in the strategy paper. Expanding the participation of woman researchers in R&D projects is substantially important for advancing research and development, as they are a party of various researchers supporting science and technology innovations. JST is expecting that woman researchers would take this opportunity, positively and will apply to our Strategic Basic Research Programs, actively. JST is undertaking the improvement of our “Childbirth, Child-raising, Nursing Care Support System,” to constantly, based on the voice of the system users, creating environments enabling a researcher on leave to return his/her research, for example.

The call for and review of R&D proposals will be conducted also from a viewpoint of advancing diversity. Our dear researchers, we cordially invite you to the call for R&D proposals.

President, Japan Science and Technology Agency (JST)

We Are Waiting for Your Application!

JST is promoting diversity in research, based on our perspective that the diversity is for understanding of other researchers having ideas different from yours, and for creation of new values by combining your and their ideas. The diversity thus has potentials to give solutions not only to the domestic problems but also to problems common in all nations across the world. Therefore, JST is undertaking the societal problem of the globe such as the Sustainable Development Goals (SDGs), through the promotion of diversity in research, collaborating with foreign institutions.

JST is promoting the diversity by ensuring the activities of women researchers, of course young

researchers, and foreign researchers having foreign citizenship. To ensure that each researcher is fully able to exercise his/her skills, JST is providing continual supports for childbirth, childcare, and homecare of elderly relatives, and also endeavoring to maintaining a balanced membership composition in committees and alike. JST especially welcomes the application of women researches to our program, from whom we cannot have so many R&D proposals in previous years, to realize environments where various kinds of researcher can work, cooperating and competing with each other. Through these activities, JST is pursuing the creation of new values.

We are sincerely waiting for your active applications, especially those form woman researchers.

Director of the Office for Diversity and Inclusiveness
Department of Developing Human Resources for R&D Programs
Japan Science and Technology Agency (JST)

1.2.3 **Toward the Promotion of Fair Research**

Toward the Promotion of Fair Research

Recent incidents involving misconduct and dishonesty in research activities have resulted in an alarming situation that threatens the relationship of trust between science and society, and hinders the healthy development of scientific technologies. To prevent misconduct in research activities, there must be a function of autonomous self-purification in the scientific community. Each researcher must strictly adhere to strict discipline and work to create new knowledge and inventions that are useful for society, based on high moral standards that meet the expectations of society.

As a funding agency for research, the Japan Science and Technology Agency (JST) considers research misconduct to be a grave issue and makes every effort to prevent it in cooperation with relevant organizations, with the goal of regaining public trust.

1. JST believes that honesty in research activities is extremely important for Japan, which seeks to develop itself through science and technology.
2. JST supports honest and responsible research activities.
3. JST strictly condemns any misconduct in research activities.
4. JST will promote education in research ethics and reform its research funding programs in cooperation with relevant organizations, in order to prevent misconduct.

We must develop a healthy scientific culture based on social trust, so as to build a society filled with hopes and dreams for a bright future. We therefore request the continued understanding and cooperation of the research community and related institutions.

President, Japan Science and Technology Agency (JST)

Chapter 2. Concept of Program Supervisor in Solicitation and Selection

Program Supervisor in charge of Social Isolation Framework:
URA Mitsuhiro
Professor, Otemon Gakuin University / Professor Emeritus, Hiroshima University

1. Background of Social Isolation and Loneliness

Since ancient times, human beings have formed various levels of groups and communities, such as families, villages, and countries, through their connections. In pre-modern societies, people worked and produced self-sufficient lives based on family and community ties, i.e., blood and land relations. However, with the establishment of nation-states and the Industrial Revolution, modern society was born. Individuals became independent of blood and land relations to a certain extent since their labor power became a tradable asset and developed human rights ideology. At the same time, however, the bonds that had protected individuals as a group became weaker. Many things were left to the individual's choices, resulting in the individual being left to his or her responsibility.

Today's Japan is facing a variety of changes in its social structure, including reducing household sizes due to the declining birthrate, aging population, and nuclear families; the spread of urban lifestyles; the advancement of economic globalization; and an increase in the number of non-regular workers due to low economic growth. Social isolation and loneliness are becoming more and more apparent as social issues against the background of these changes in social structure. As man is a social animal, it is difficult for humans to live adaptively without stable relationships with others. Social isolation and loneliness can directly or indirectly affect a person's ability to adapt to society, worsen their physical and mental health, and cause serious consequences such as death by isolation or suicide. In a society where many people are isolated and pay little attention to each other, social norms are weakened, leading to an increase in deviant behavior. Mutual indifference can also increase the risk of criminal victimization.

In addition, after 2020, the global COVID-19 pandemic has made it necessary to ensure physical distance between individuals in various settings such as homes, schools, workplaces, and public facilities. It is noteworthy that people who are not considered to be at high risk for social isolation

and loneliness may become socially isolated and lonely due to the influence of COVID-19. For example, a new student enrolled in a university may become mentally unstable and think about taking a leave of absence or leaving the university because he or she had to continue taking online classes at home, and therefore could not have a sense of belonging to the university, meet with friends, or ask their advice. Even people who seem to be leading everyday lives, such as mothers raising children or retirees who are less connected to their communities, may lose their social ties for some reason and fall into social isolation and loneliness.

With the further acceleration of the online trend, the penetration of virtual space into society, and its integration with daily life, people in a state of social isolation and loneliness may find a new community and place in virtual space, or another form of exclusion and bullying may emerge there. It is also very important to consider the implications of virtual space in the prevention of social isolation and loneliness.

In the COVID-19 pandemic, the way of trust and relationships, and consensus building between people has changed, moreover, disparity and poverty are becoming more apparent and expanding, therefore it is necessary to specifically examine the mechanisms of social isolation and loneliness under new circumstances, such as how and among which social groups of people increasingly fall into social isolation and loneliness situations and how this can be prevented.

2. Considering Social Isolation and Loneliness as a Society

Social isolation refers to a lack of relationship with others in an objective view, such as lack of contact, social activities, and intimate relationships. Apart from the lack of relationship in objective view, loneliness refers to how much the individual subjectively feels isolation or lack of relationship. Several studies have shown that social isolation and loneliness may independently affect health and life expectancy. For example, even if people are socially connected, their health may be impaired by feeling lonely in that situation. Conversely, even if people do not feel lonely, their health may be damaged by being socially isolated. Both the objective and subjective perspectives of interpersonal relationships need to be considered when intervening with people with mental and physical problems.

Another perspective that should be focused on is that social isolation has multilayered views, such as the isolation of a specific region from the rest of society, the isolation of a particular family from

the rest of the area, and individual isolation rest of the family.

Social isolation and loneliness are not pathological characteristics of individuals who are isolated from his/her environment. It can result from his/her values and preferences, or it can be the consequence of a life course that he/she has failed to choose or realize. In some cases, environmental conditions such as social norms, institutions, and policies are reflected. It may be determined that it is the social environment rather than the individual that should be considered. Suppose this is forgotten and treat it as individual's own fault that he/she falls in that situation because of his/her pathological characteristics. In that case, it may result in further and new stigma.

The goal of this program is to build new connections and networks that do not lead to isolation and make new connections and networks for isolated people. Therefore, this program will promote research and development from a multifaceted perspective, including social isolation as the focus and loneliness, social exclusion, and related concepts such as happiness and well-being.

3. Issues of “Invisible” Social Isolation and Loneliness

One of the significant characteristics of social isolation and loneliness is invisibility. In the first place, isolation is deepened by losing social connections and becoming less visible to others. With the decrease in face-to-face contact following the COVID-19 pandemic, some problems are more complex to see than ever before. In addition, it is even more difficult to understand an individual's subjectivity and feelings such as isolation and loneliness. Regarding social isolation and loneliness, there are existing support programs for students who are chronically absent from school and shut-in. Still, these measures are sometimes only for the moment for the people concerned. The goals are set based on existing social norms, such as the number of students enrolled in school and the number of people working, and the people involved may not be satisfied and lose their connection to society again. Moreover, even if such symptomatic approaches help to solve individual problems, they are unlikely to prevent new similar problems from arising. Society has not yet established a methodology for analyzing social isolation and loneliness from the perspective of society, the environment, and the times, rather than viewing it as the self-responsibility of the individual concerned, and for developing and implementing reproducible measures that are appropriate to the circumstances in which social isolation and loneliness occur. As a result, it is not possible to deal with the issues strategically. Trial and error may be repeated.

In addition, as the social structure and the system undergoes various changes, more and more

people are off from activities to be watched over and supports. Furthermore, it is necessary to handle the information of individuals concerned with consideration for protecting privacy.

4. Primary Prevention of Social Isolation and Loneliness Aimed at by This Program

Social isolation and loneliness are problems that can be resolved if addressed at an early stage, but they are not always visible to those around them. In some cases, people who suffer from social isolation and loneliness become so self-responsible that they are unable to seek support from the people around them, leading to serious social isolation and loneliness. As a result, it is sometimes more difficult to detect and approach people who are suffering from serious social isolation and loneliness. Therefore, it is essential to identify the risk of social isolation and loneliness as early as possible and prevent it before it becomes a severe problem.

This program takes the approach of visualizing and measuring the state of isolation and loneliness based on information related to the environment and circumstances surrounding the subject who falls into isolation and loneliness, and then preventing unwanted isolation and loneliness based on this information. The importance of a secondary prevention approach to prevent the worsening of social isolation and loneliness, which is visualized to some extent and receives a high level of social attention, is by no means denied. However, this program, while utilizing prior knowledge on support measures for people in such apparent isolation and loneliness, emphasizes primary prevention as a fundamental preventive measure, aiming to improve social factors for all members of society and to create a social system that does not create social isolation and loneliness in the first place.

It has also been pointed out, for example, that social isolation and loneliness are one of the factors behind antisocial behavior such as delinquency, violence, and crime. The importance of primary prevention of social isolation and loneliness is often recognized in society only when such “invisible” social isolation and loneliness becomes apparent through antisocial behavior. This program is expected to address not only the individual risk of social isolation and loneliness, but also the collective consequences for society.

For example, the following perspectives could be considered to address social isolation and loneliness.

(The following is only an illustrative image, and we welcome proposals that contribute to the achievement of the program goals without limitation.)

・The relationship between weakened human connections and public safety based on an analysis of local communities.

・Community development and architecture that naturally creates human connections and prevents social isolation and loneliness.

・Positive and negative effects of ICT virtual space on social isolation and loneliness.

・Design a system that allows for intervention in times of crisis, even if face-to-face activities are restricted as in the case of the COVID-19 pandemic, or not normally connected.

・Community to ensure that foreign residents are not left behind in times of disaster due to language and cultural differences, lack of information, etc.

Given the fact that there are not necessarily a large number of the sites that address social issues before they become apparent, it is expected to be difficult to address the primary prevention of social isolation and loneliness toward social implementation. Therefore, this program has established a Small Start (feasibility study) for about one and a half years to enable the discovery and creation of the sites that can collaborate, and together with a full-scale research and development period of about 3 years after passing the Stage-Gate evaluation, it is designed to proceed from a medium- to long-term perspective.

In the future, social structures and people's values are expected to undergo major transformations, partly due to advances in related technologies such as Society 5.0 and the AI that forms its backdrop. Right now, we need to address fundamental questions such as, “What is the problem of social isolation and loneliness?,” “What kind of state is called a state without social isolation and loneliness?,” “How can social isolation and loneliness be prevented in the first place?,” “How can a society that does not produce social isolation and loneliness be created?,” “What should be achieved through the prevention of social isolation and loneliness?,” and “What kind of interventions should we be cautious about?.” In order to realize a dignified way of life for each individual, this program will question the nature of existing connections among people, organizations, and communities. The program aims to create a society where social isolation and loneliness will never occur by building diverse social connections and networks that allow people, organizations, and communities to continue to exist by establishing flexible connections, sometimes by creating strong bonds, and sometimes by gently watching over them from a distance.

5. Utilization of Knowledge in HSS and R&D to Solve Social Issues

"Science and Technology Basic Law" was revised in June 2020 and renamed "Science, Technology and Innovation Basic Law" in April 2021. The promotion of humanities and social sciences (HSS) and the creation of innovation were added to the scope of promotion of the law. The 6th Science, Technology and Innovation Basic Plan (approved by the Cabinet on March 26, 2021) states that the Science, Technology, and Innovation (STI) policy is not only to promote science and technology but also to contribute to the comprehensive understanding of human beings and society, and to solve their problems, through "comprehensive knowledge" by integrating the "knowledge" of HSS and the "knowledge" of natural sciences, which creates social values.

In February 2021, the Minister in charge for Loneliness and Isolation was appointed, and the Office for Policy on Loneliness and Isolation was established in the Cabinet Secretariat. The "Basic Policy on Economic and Fiscal Management and Reform 2021" approved by the Cabinet on June 18, 2021, included the basic direction of measures against loneliness and isolation, and based on this, "Priority Plan on Measures for Loneliness and Isolation" was established on December 28, 2021 at the Council for the Promotion of Measures for Loneliness and Isolation. In order to get a general picture of the actual situation of loneliness and isolation in Japan, the Office for Policy on Loneliness and Isolation plans to conduct a nationwide survey during FY2021 and publish the results.

This program takes a fundamental approach by utilizing knowledge from a wide range of HSS, including analysis of people's behavior, psychology, and social background; historical, philosophical, and anthropological considerations to examine what social isolation and loneliness mean and what aspects are the problem; and international comparisons to identify the characteristics of Japanese society that give rise to social isolation and loneliness. Therefore, we will emphasize cross-targeted and cross-disciplinary efforts that focus on characteristics and solutions common to people with different attributes. In addition, this program will not only elucidate the mechanisms that lead to social isolation and loneliness, but also promote research and development that solves social issues leading to the development and implementation of strategic measures from the perspectives of cross-functional paradigm. This program welcomes R&D that unifies the policies of each governmental agency and various fields to contribute to the expansion of public-private and private-private networks, as well as efforts to integrate different areas such as ICT and the arts. In particular, when taking a natural science approach, we expect developmental proposals based on reflection from the perspective of HSS, including the risks involved in applying this approach to society.

Chapter 3. Overview of Research and Development

3.1 The Goal of the Program

To achieve the SDGs, RISTEX has been conducting two types of activities, the Scenario Creation Phase, and the Solution Creation Phase, under the title “Solution-Driven Co-creative R&D Program for SDGs (SOLVE for SDGs)” since fiscal 2019 as an R&D program aiming to create immediate solutions to regional issues with complex and wide-ranging themes by utilizing existing technology seeds and to expand the solutions to other regions. Since social isolation and loneliness is one of the essential perspectives of the SDGs, in fiscal 2021, RISTEX has established a particular framework (Social Isolation Framework) under the SOLVE for SDGs program, “Preventing Social Isolation & Loneliness and Creating Diversified Social Networks” (hereinafter referred to as “this program”) and started research and development.

This program promotes clarification of the mechanisms of social isolation and loneliness based on various changes in the social structure, such as declining population, low birthrate, aging society, economic changes, and the impact of emerging infectious diseases such as COVID-19, while producing the vision of a society that does not lead to social isolation and loneliness. This program furthermore promotes R&D on visualization and evaluation methods (indicators, etc.) for the risk of social isolation and loneliness in people and groups, as well as social schemes to prevent social isolation and loneliness. This program expects such R&D to be conducted in an integrated way up to Proof of Concept (PoC), including the verification of the effectiveness of preventive measures against social isolation and loneliness by using the evaluation methods (indicators, etc.) developed in each project. This program aims for a society that does not lead to social isolation and loneliness by creating diverse social connections and networks among people, organizations, and communities.

In particular, the global COVID-19 pandemic after 2020 has made direct face-to-face communication difficult, and social isolation and loneliness has become more apparent and serious in all situations where there is no rapid and sufficient response to unexpected physical fragmentation. People and groups that have been immune from social isolation and loneliness are increasingly at risk of falling into social isolation and loneliness. It will be necessary to pursue desirable connections and networks in with-corona and post-corona societies, and to actively build such networks. Therefore, we also welcome proposals based on the social impact of COVID-19.

3.2 R&D Focus

Since the issues of social isolation and loneliness are becoming more complex and compounded due to changes in various social structures, it is necessary to develop and implement more strategically practical measures through fundamental, cross-functional, and comprehensive approach that provides deep insight into people's behavior, psychology, and social backgrounds, rather than working on each problem for a short-term and temporary measures.

This program is designed to integrate research knowledge with the knowledge from the sites and to implement Proof of Concept (PoC) at the sites for targets that require taking a deep dive on R&D of understanding of social mechanisms based on various changes in the social structure and utilizing the knowledge of HSS. All the following R&D elements will be included and promoted in an integrated way: 1) understanding the mechanisms of social isolation and loneliness and producing a new vision of society that does not lead to social isolation and loneliness, 2) visualizing the risks of social isolation and loneliness for people and groups and developing evaluation methods (indicators, etc.), and 3) social schemes to prevent social isolation and loneliness.

To solve problems in the real society, it is essential that R&D elements 1) and 2) are certainly connected to 3) and function as a mechanism in society. To ensure that the research is not limited to conceptual analysis, efforts must be made to clarify the location and target of the actual operation of the developed social schemes.

Therefore, when demonstrating the developed social schemes to prevent social isolation and loneliness for R&D element 3), the proposal must be specific to the sites, such as areas, schools, workplaces, and communities, etc. in Japan. The proposals are also expected to promote interaction between research knowledge and the knowledge from the sites by evaluating existing policies, cross-functional and comprehensive analysis of various types of social isolation and loneliness, and integration of different fields such as ICT and the arts.

<R&D Elements>

(1) Understanding the mechanisms of social isolation and loneliness and producing a new vision of society does not lead to social isolation and loneliness.

This program examines the behavior, psychology, and social background of people and groups. It analyzes what mechanisms cause social isolation and loneliness and the state of society including from the perspective of those in situations of social isolation and loneliness. Based on the results of

this study, the social isolation and loneliness to be prevented will be clarified, and the vision of a new society that does not lead to social isolation and loneliness will be produced. It is necessary to have an attitude to promote R&D while confronting fundamental questions such as “What is the problem of social isolation and loneliness?,” “What kind of state is called a state without social isolation and loneliness?,” “How can social isolation and loneliness be prevented in the first place?,” “How can a society that does not produce social isolation and loneliness be created?,” “What should be achieved through the prevention of social isolation and loneliness?,” and “What kind of interventions should we be cautious about?.” Due to the influence of COVID-19, the importance of connections in virtual space is rapidly increasing, and it is essential to organize concepts to clarify what can be defined as connection and which and whose social isolation and loneliness can be prevented by this.

(2) Visualizing social isolation and loneliness risks for people and groups and developing evaluation methods (indicators, etc.)

This program aims to develop visualization and evaluation methods (indicators, etc.) for early detection of the risk of social isolation and loneliness among people and groups to realize the vision of society envisioned in R&D element 1).

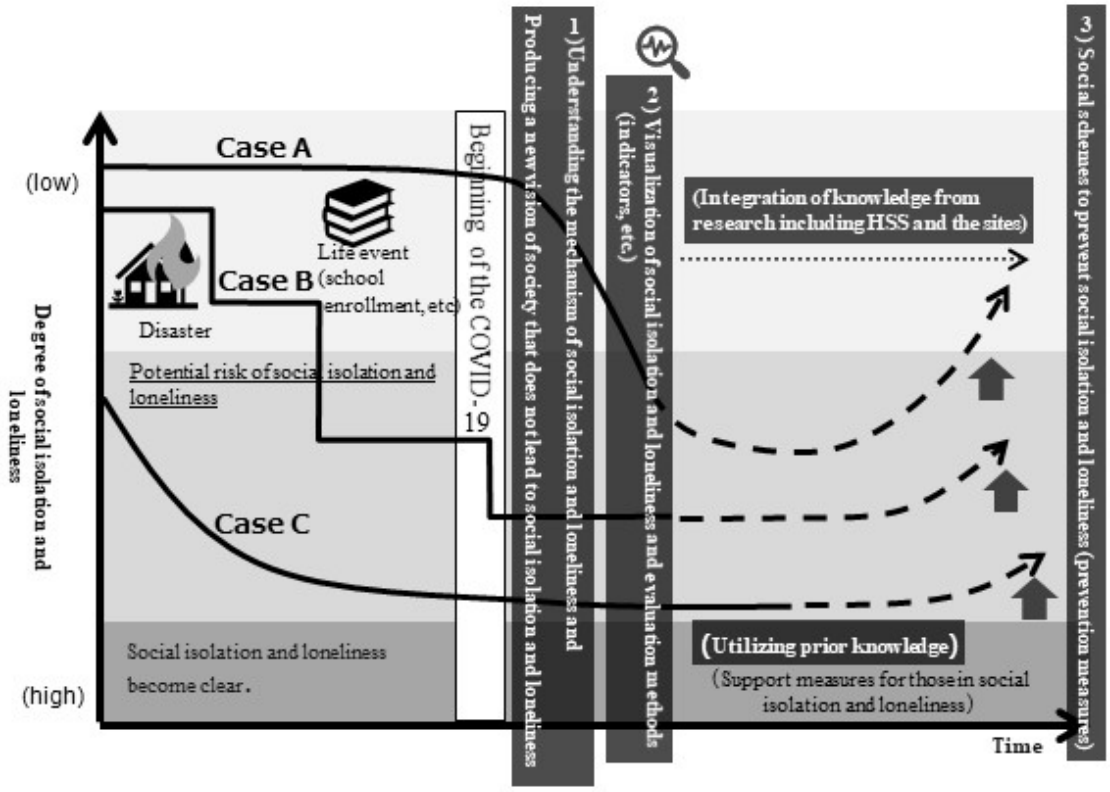
Specifically, this R&D includes outreach methods for people and groups who are at risk of social isolation and loneliness; methods for comprehensively identifying those at risk by utilizing not only quantitative and objective information on social capital, health, poverty, well-being, QOL, etc., but also qualitative and subjective information expressed in various media such as documents, videos, SNS, etc., methods for collecting information and compiling a database using ICT such as human sensing and online access history, and methods for collecting and processing information in consideration of privacy.

Particularly about privacy, it is necessary to determine what information to obtain from whom, how to use it, and how to intervene, based on mutual understanding with the supporters and parties at the sites. It is also essential to discuss the ethics of acquiring data and using it for interventions intended to modify people's behavior and promote responsible research and development.

(3) Social structures to prevent social isolation and loneliness

This program develops social mechanisms (preventive measures) to prevent social isolation and loneliness. It evaluates and demonstrates them based on the methods (indicators, etc.) for

visualizing and evaluating the risk of social isolation and loneliness developed in R&D element 2). This program includes explicitly the design and implementation of new connections and places for people and groups who are at risk of social isolation and loneliness, the performance of educational programs to reduce the risk of the situation, and methods of cooperation with the mass media and policy proposals for educational activities to expand understanding of the new vision of society. As Proof of Concept (PoC), prototypes of measures to prevent social isolation and loneliness will be implemented in specific areas, schools, workplaces, communities, etc. in Japan, and the evaluation of the trial results will be conducted at the sites.



Case A: Irrelevant to social isolation and loneliness, but increased the risk of isolation and loneliness after COVID-19
Case B: Gradually increased risk of social isolation and loneliness due to disasters/life events, even worse after COVID-19
Case C: High risk of social isolation and loneliness from an early age due to a given environment or disability
Created by RISTEX with reference to "special information on the 8th Council of social security How to support people in need, Ministry of Health, Labour and Welfare, The Process of Social Exclusion: An Overview of the Exclusion Process in Case Studies of Youth Overview (Documents submitted by the Cabinet Secretariat/Cabinet Office) (September 28, 2012) "

Figure: integrated promotion in R&D elements 1), 2) and 3)

3.3 Small Start (Feasibility studies) / Stage Gate Evaluation

What is extremely important in this program is to create genuinely effective preventive measures against social isolation and loneliness in the real society without being separated from the sites,

based on the elucidated mechanisms of social isolation and loneliness and the new vision of society, using a fundamental approach that also utilizes knowledge from such as a wide range of HSS.

Therefore, it is necessary to have a functional and institutional framework that supports and fosters the formulation of concrete concepts for realizing the produced new social vision in the real society, the establishment of a system in which researchers in HSS and S&T collaborate with various stakeholders in society, including those at the sites, as well as the understanding by R&D sides of the needs of the sites (evaluation indicators of measures, etc).

Therefore, as in the previous fiscal year, in FY2022, this program will establish a Small Start (feasibility study) about one and a half year in principle to ensure a path to the integrated promotion in R&D elements 1), 2) and 3) and PoC implementation, and to conduct feasibility study for Full-Scale R&D, while formulating a concept for realizing a new social vision and strengthening the system creating such as connection with the sites. Note 1).

The project will start R&D after clarifying bottlenecks such as challenges, barriers, and difficulties in promoting R&D elements 1), 2), and 3) of “3.2 R&D Focus” in an integrated way up to PoC, and will focus on clarifying a path to solving the bottlenecks during the Small Start period.

In particular, this program emphasizes the perspective of primary prevention, which is to create a social system that does not create social isolation and loneliness in the first place by improving social factors targeting all members of society, while utilizing the knowledge of existing efforts related to social isolation and loneliness. However, there are not necessarily many sites that address social isolation and loneliness before it becomes a social issue, so during the Small Start period, the project will identify and create the sites for PoC in parallel with understanding the mechanism of social isolation and loneliness and developing risk assessment methods (indicators, etc.).

After that, a Stage-Gate evaluation Note 2) will be conducted by the end of FY2023. If the project is determined that the continuation of the R&D is appropriate from the perspective of the achievement of the project goals and the status of the system to promote R&D elements 1), 2), and 3) of “3.2 R&D Focus” in an integrated way up to PoC, the project will move to the Full-Scale R&D period of about three years in principle, after optimizing the research plans and team. In addition, if further improvement in the potential for establishing and deploying Full-Scale R&D outputs is expected, the R&D period can be extended up to two years after evaluation.

When moving into a Full-Scale R&D period, there may be integration and reorganization between teams within a project and between projects.

Note 1) Small Start (feasibility study): A system to start a project on a relatively small scale at the time of its adoption, develop the project structure toward Full-Scale R&D, and verify the path to achieve the project goals, including the implementation of PoC.

Note 2) Stage-Gate evaluation: A system to divide R&D into Small Start and Full-Scale R&D stages, determine the appropriateness of continuing R&D based on the evaluation of the Small Start period, and decide whether to shift to Full-Scale R&D or stop.

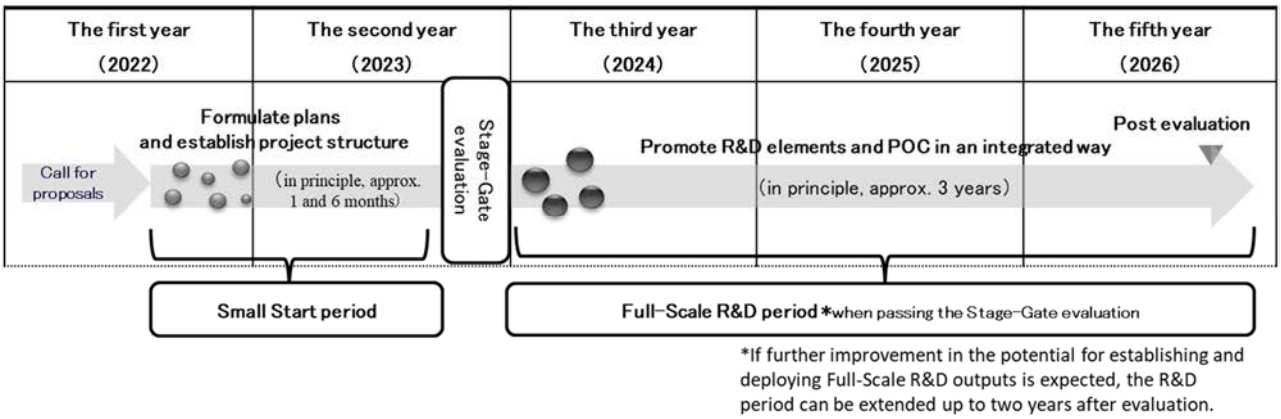


Figure: Small Start (feasibility study)/Stage-Gate evaluation

Specifically, during the Small Start period, the project will focus on the following activities toward the Full-Scale R&D period.

- Based on a mutual understanding of the needs and issues of both the research side and the sites, specify a plan to promote R&D elements of 1), 2), and 3) of “3.2 R&D Focus” in an integrated way up to PoC.
- Clarify the path toward resolving bottlenecks to achieving project goals, including the implementation of PoC.
- Establish a system for collaboration among researchers in HSS and S&T as well as various stakeholders in society, such as the sites, to promote R&D elements 1), 2), and 3) of “3.2 R&D Focus” in an integrated way.
- Establish a system to demonstrate the effectiveness of the developed measures for the prevention of social isolation and loneliness in specific regions, schools, workplaces, and communities, etc.

in Japan to implement the PoC.

- Describe the potential future impact of the R&D results (creating academic and public value, contributing to current and future social and industrial needs, influence and development to other fields and regions in Japan and overseas, etc.) and the paths that will contribute to the achievement of the Sustainable Development Goals (SDGs).

3.4 Notes on Proposals and the Conduct of Research and Development

- Research and development will be carried out in collaboration with domestic governmental institutions, universities, research institutions, public corporations, NPOs, private companies, and other organizations that JST can commission.
- To implement R&D elements 1), 2), and 3) in “3.2 R&D Focus” in an integrated way, it is necessary to conduct research for social implementation that bridges the research side and the sites’ side, simultaneously promote research and practice, and integrate various findings obtained from the site to the system and social design. Therefore, it is expected that both the research side and the sites’ side (users of research outputs) participate in the project before Full-Scale research starts.
- It is expected to promote comprehensive and integrated research and development from both tangible and intangible perspectives, utilizing transdisciplinary knowledge in the HSS and S&T from the cross-functional perspectives and prior knowledge on support measures for those who have become apparently isolated.
- It is essential to collaborate with relevant organizations, such as local governments, NPOs, and educational institutions, from the early stage of R&D to ensure that developmental efforts continue after the completion of the implementation period.
- Consideration will be given to gender and other diverse perspectives in all aspects of R&D, including research targets, research methods and prerequisites, and design in technology development.
- Since the issues raised by this program are not limited to domestic issues but also include current and future problems overseas, proposals for collaboration with abroad are also encouraged, including the use of overseas knowledge, fields, and human resources. However, the developed social schemes for preventing social isolation and loneliness need to be demonstrated at sites such as specific regions, schools, workplaces, and communities, etc. in Japan.

3.5 Management of R&D Program

JST RISTEX will manage this program under the following structure and method. And, we will collaborate with the Scenario Creation Phase and Solution Creation Phase of the “Solution-Driven Co-creative R&D Program for SDGs (SOLVE for SDGs),” which also aims to realize measures to solve problems toward achieving the SDGs in promoting R&D.

- A Program Supervisor (in charge of the Social Isolation Framework) is responsible for operating the program and provides overall management. The Assistant Program Supervisor is appointed to take over some of the duties of the Program Supervisor when it is deemed necessary for the operation of the program.
- Program Advisors are appointed to give specialist advice to the Program Supervisor.
- Other external experts, such as experts in specific fields necessary for promoting and evaluating research and development, may be appointed as evaluation specialists and external promotion committee members to seek their opinions.
- Together, the Program Supervisor, Assistant Program Supervisor, Program Advisor, and the secretariat conduct the call for projects and their selections and implement meetings or initiatives necessary for effective program management (e.g., advising on research and development, conducting site visits, etc.).
- The Program Supervisor will conduct reviews as necessary, including the adjustment of R&D budgets and the restructuring and consolidation of the projects.
- In the management of this program, JST will flexibly respond to social situation and international trends, including the emphasis and changes in the policy for the adoption of proposals.
- In the management of this program, JST will actively implement various plans to promote exchanges, collaborations, and interactions among the adopted projects and to set up opportunities for discussions with internal and external parties with perspectives of a cross-functional and comprehensive view of the projects (e.g., on-site lodging and program-wide meetings). This program will also conduct outreach activities about R&D outcomes (such as meetings for reporting outcomes and offering information on the Web).

In addition, the following activities are planned for this program.

■This program aims to promote formulating plans to realize a new vision of society and establishing

framework to connect with the sites. For that purpose, the program offers support that provides advice for formulating a project plan, matching HSS research with the sites to strengthen the framework, fostering the project with a management system that consists of people with diverse expertise related to social isolation and loneliness and experience in development and operation of measures.

■Research questions for the program will be set and discussed from a cross-project perspective with the management group, projects, external experts, and recipients and supporters of the results throughout the entire implementation period of this program. The questions and answers will be reviewed from time to time.

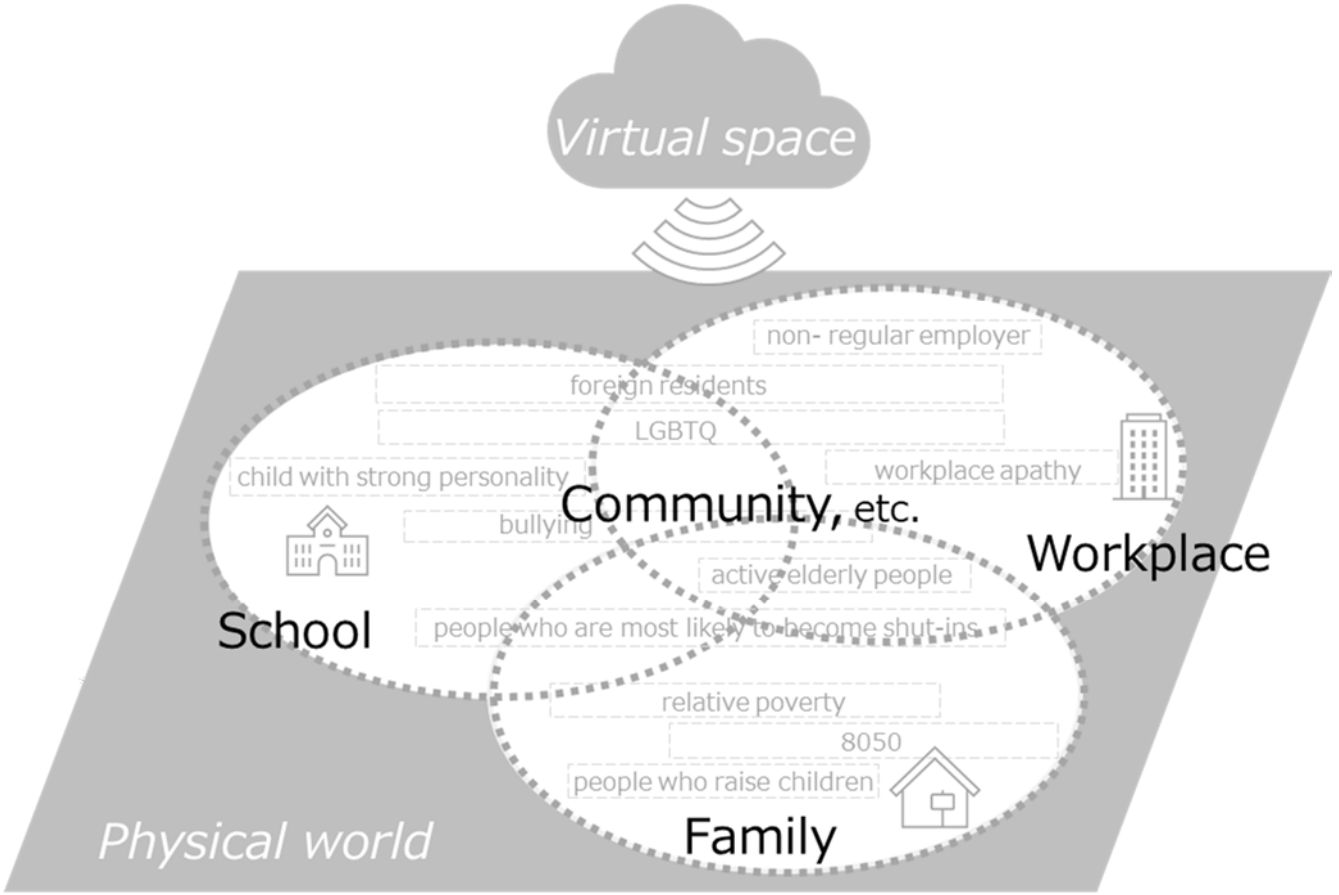


Figure: Portfolio of the program

This figure provides a bird's-eye view of various types of social isolation and loneliness, as well as places, groups, and organizations such as “home,” “school,” “workplace,” and “community.” This figure also shows the possibility that social isolation and loneliness may occur in these places not only in “real space” but also in “virtual space,” and that real space and virtual space may play complementary roles. This diagram is only an example. In this program, while making use of previous findings on social isolation and loneliness that have already emerged, it is expected to fundamentally reexamine the types of social isolation and loneliness and the composition of places, groups, and organizations, and to implement new approaches that will lead to the primary prevention of social isolation and loneliness.

Chapter 4. Call for R&D Proposals and Selection

4.1 Call Period and Selection Schedule

The main schedule for selection is as follows. Please note that the submission deadline differs from other areas and programs.

Applications will be made through the Cross-ministerial R&D Management System (e-Rad) (Please refer to “4.6 Application Method”). As the application deadline approaches, heavy demands on the e-Rad system could slow the application process and even cause the application deadline to be missed. Please give yourself enough time to complete application of proposal. A withdrawal of an application through e-Rad after the deadline cannot be processed. JST will not accept proposals for which the application process has not been completed in e-Rad by the deadline for any reason.

The name and affiliation of the Proposer in e-Rad should match that provided in the research proposal. The application of a research proposal uploaded to e-Rad will not be accepted if it contains defects. A defect making the review of the proposal difficult refers to omission of proposal application forms, serious character corruptions that make it difficult to read, and omissions of important items on the application forms.

Furthermore, JST is not responsible for any defects in a research proposal that may occur before the submission deadline, regardless of whether the proposal was received or not. As such, Proposers must understand that JST will not require or request the Proposer to make any revisions to their research proposals before the research proposal submission deadline.

Research proposal acceptance begins	April 5 (Tue.), 2022
Briefings of solicitation	April 12 (Tue.), May 10 (Tue.), 2022 Online Meeting Details will be posted on the proposal application website. （https://www.jst.go.jp/ristex/proposal/proposal_2022.html）
Application deadline *1	Noon (12:00 p.m., Japan time) on July 8 (Wed.), 2022 (No delays accepted)
Document screening period	Mid-June – July 2022 (planned)
Notification of document screening results	Notice will be provided at least one week prior to the interview screening(planned).

	Those eligible for the interview will be asked to prepare and submit a “presentation video,” “presentation slides,” and “answers to the questions for the interview selection process” prior to the interview screening.
Interview screening*2	August 1 (Mon.) and 2 (Tue.), 2022 (Planned)
Candidates Interview with the Program Supervisor	August 17 (Wed.) and 18 (Thu.), 2022 (planned)
Notification and announcement of selection results	Late September, 2022 (planned)
Start of research and development	Early October, 2022 (planned)

*1 Deadline for submitting applications through the Cross-ministerial R&D Management System (e-Rad).

*2 Interview screening will be held online using Zoom, etc. Proposers may be asked to participate in a connection test prior to the interview.

4.2 R&D Period

・Small Start (feasibility study) period: In principle, approx. 1 year and 6 months

・Full-Scale R&D period: (when passing Stage-Gate evaluation): In principle, approximately 3 years or less

*If further improvement in the potential for establishing and deploying Full-Scale R&D outputs is expected, the R&D period can be extended up to two years after evaluation.

4.3 R&D Budget (Direct Costs)

・Small Start (feasibility study): Maximum of approx. 12 million yen per year

・Full-Scale R&D project period (when passing the Stage-Gate evaluation): Maximum of approx. 19 million yen per year (depending on the budget for the fiscal year, and on the scrutiny of the Stage-Gate evaluation)

However, for FY2022, since it is assumed that R&D will start in October, please allocate expenses (up to about 6 million yen) for 6 months until the end of the fiscal year.

a. Please refer to “5.5. R&D Budget” and “Chapter 8 Q&A on Call for Proposals” for the use of the

R&D budget (direct costs) and indirect costs.

b. JST will not directly hire those who engage in R&D – including the Principal Investigator.

As per the Collaborative Research Agreement, JST will pay the institution implementing the project for all R&D budget (direct costs) and indirect costs (in principle, 30% of direct costs). This will be paid as consigned research funds to the institution.

We may make adjustments according to management (e.g., grasping the project's progress situation) by the Program Supervisor, Assistant Program Supervisor and Program Advisor when determining the R&D fund to be allocated after adoption. For details, please refer to "5.5 R&D Budget."

4.4 No. of Projects to be Selected

About 5 projects

The number of projects to be adopted will be adjusted according to the contents and conditions of the proposals.

4.5 Requirements for Application

Principal Investigators must have completed the educational program on research integrity at the time of proposal application!

Note that if completion of the program cannot be confirmed, the application will be disqualified for failing to meet the requirements. At the time of proposal application, it is acceptable if the Principal Investigator only completed the program. For details, please read "6.1 Enrolling in and Completing the Educational Program on Research Integrity" and "Chapter 8 Q&A on Call for R&D Proposals."

Proposers, who will serve as Principal Investigator, will submit the proposal themselves. Requirements for proposal application are presented below. Please ensure you understand these requirements for your application.

*In principle, if the determination is made that an application does not meet the requirements by the time of selection, the research proposal will either not be accepted or not be selected.

*If an application is selected, the application requirements must be maintained for the entire duration of the period of R&D project. If the R&D project fails to meet the requirements during the research

period, the research project will in principle be completely or partially suspended (i.e., be terminated early).

In addition, proposals must be submitted after understanding the matters herein as well as “Chapter 6 Key Points in Submitting Proposals.”

4.5.1 Multiple Applications

(1) One person may only submit one proposal as Principal Investigator for one project only.

(2) Multiple applications will not be permitted for those applying to the FY2022 Call for R&D Proposals for “Responsible Innovation with Conscience and Agility,” “Solution-Driven Co-creative R&D Program for SDGs (Scenario Creation Phase, Solution Creation Phase),” and “Science of Science, Technology and Innovation Policy R&D Program.”

(3) Current Principal Investigators of the Research Institute of Science and Technology for Society (RISTEX) cannot submit proposals (excluding cases where the R&D implementation period ends during FY2022).

4.5.2 Requirements for Proposers

a. The Proposer must be able to head up the R&D project members and exhibit leadership in implementing the project in order to realize the concept.

b. The Proposer who will serve as Principal Investigator must belong to a domestic Japanese research institute and be able to organize and implement research and development at that institution.

Furthermore, persons who correspond to the following can also apply as Proposers.

・Researchers who have foreign citizenship, but who are affiliated with a domestic Japanese research institution.

・Researchers who are not currently affiliated with a research institution, or are affiliated with an overseas research institution, and, if selected as a Principal Investigator, must be able to organize and pursue project as a researcher affiliated with a domestic Japanese research institution.

・A Japanese national who currently resides overseas, and, if selected as Principal Investigator, must be able to organize and pursue project as a researcher affiliated with a domestic Japanese research institution.

*Domestic Japanese research institution indicates universities incorporated in Japan, national

research and development corporations, specified non-profit corporations, companies, and local governments. However, the prescribed conditions must be satisfied. For more details, please refer to “5.9 Responsibilities of Research Institutions”

*This also covers those affiliated with private sector companies and other non-university research institutions.

*Must not be in breach of restrictions of application requirements related to improper accounting practices and misconduct in research.

c. Able to assume responsibility for the entire project as the Principal Investigator throughout the entire period of the project. For details, please refer to “5.8 Responsibilities of Principal Investigator and Lead Joint Researchers.” For example, during the project period, the Principal Investigator must reside in Japan and the Principal Investigator must be able to fulfill his/her responsibilities for a long period of time without interruptions, such as overseas business travel and other reasons.

d. Have already completed the educational program for research integrity at his/her affiliated research institution or will complete the JST- designated educational program by the application deadline. For details, refer to “6.1 Enrolling in and Completing the Educational Program on Research Integrity.”

e. The Proposer must make the following four pledges upon application of his/her proposal.

・Understand and comply with “Guidelines for Responding to Misconduct in Research” (decided by the Minister of Education, Culture, Sports, Science and Technology on August 26, 2014).

・Understand and comply with “Guidelines on Management and Audit of the Public Research Expenses in Research Institutions (Implementation standards)” (decided by the Minister of Education, Culture, Sports, Science and Technology on February 15, 2007; revised on February 1, 2021)

・If the research proposal is accepted, the Principal Investigator and other R&D participants must not engage in misconduct in their research (fabrication, manipulation, and plagiarism) nor in inappropriate usage of research funds.

・The Proposer must not have engaged in misconduct in the past to achieve the research results that are mentioned in the submitted research proposal.

*The above verification will be part of the e-Rad Application Information Entry screen.

4.5.3 Requirements for Research Institutions

In principle, only Japanese research institutions can promote R&D in this program (can enter into the Collaborative Research Agreement). However, it does not matter if this entity is a private company, one of various organizations, an NPO, a university, a research institution or otherwise. Please also refer to “5.10 When a Person Belonging to an Overseas Institution Participates as the Lead Joint Researcher.”

Research Institutions must fully understand that the research funds are public funding, ensure compliance with related laws, and make efforts to implement the research effectively. Any research organization that cannot perform the responsibilities described in “5.9 Responsibilities of Research Institutions” will not be approved to conduct research. Therefore, be sure to obtain prior approval from the Research Institution at which you plan to conduct your R&D before your application.

We may investigate and confirm the administrative management structure and financial status of each research institution prior to the adoption of the project, before entering into the Collaborative Research Agreement and during the period of the agreement. Institutions deemed to need appropriate execution and management of the consigned research fund as a result may be subject to a reduction in the R&D fund, a research suspension, a shortening of the agreement period, cancelation of the agreement and other measures even if the agreement is withholden or it is during the agreement period. This is in addition to having to follow the consignment method designated by JST.

If it is not possible to enter into the agreement, it may not be possible for the said research institution to conduct the R&D. In that case, we may ask the Proposer to review the implementation structure.

It is not a problem if the organization that will conduct the R&D newly organizes for the proposal. However, at the time of selection, we will consider whether the organization will exist for the period necessary to solve social issues and whether it has the organizational structure to be able to continue operations even after the end of the project.

4.6 Application Method

Applications will be submitted using the Cross-ministerial R&D Management System (e-Rad).

Please note that applications using paper media (postal email, express parcel delivery, hand delivery, etc.) or made by email will not be accepted.

For details, please refer to “Chapter 7 Submission via the Cross-ministerial R&D Management System (e-Rad).”

(1) Registration of research institution and Principal Investigator

An e-Rad log-in ID and password must be issued for the Proposer (Principal Investigator only).

When an e-Rad log-in ID and password are newly issued, the institution the Proposer is affiliated with must carry out the following registration in advance.

① If unregistered, the institution must first register as a “research institution”

② The Proposer must be registered in “Researcher Information”

Furthermore, if the Proposer is not affiliated with a specific domestic Japanese research institution at the time of application, the Proposer him/herself must register under 2. above only (however, it is assumed the person plans to be affiliated with a domestic Japanese research institution after adoption).

For details about registration method, please refer to the e-Rad portal site.

Please complete registration procedures at least two weeks prior to the deadline because the registration process may take several days to complete.

Furthermore, once registration is complete, the Proposer does not need to register again when submitting applications for programs or projects implemented by other ministries and agencies. In addition, if registration has been completed for programs or projects implemented by other ministries and agencies, the Proposer does not need to register again. Institutions and Proposers who have never submitted a proposal for competitive research funds or received such funds (specified non-profit corporation, administrative institutions, institutions of private sector companies and affiliated individuals) should pay particular attention.

(2) Preparation and submission of proposal

The Proposer should please personally prepare the proposal document and then apply to this program. Please download the proposal document format from the e-Rad portal site (https://www.e-rad.go.jp/en/) or this program's proposal application website (https://www.jst.go.jp/ristex/proposal/proposal_2022.html) and complete the proposal document based on the explanation found in "Chapter 9 Guide to Completing the Proposal."

Please be sure to complete the proposal using objective statements wherever possible using language that is simple and not overly specialized.

Please submit the proposal document via the e-Rad site.

4.7 Selection Method

4.7.1 Selection Process

Selection will be determined comprehensively based upon "4.8 Notes on Selection" following a review of proposal documents and interview of Proposers that passed the document selection process.

(1) After the document screening, the Proposers selected for interviews will be notified in writing and will also be informed of the interview procedures, schedule, and additional materials to be submitted. During the interview, the Proposer him/herself will be asked to explain the concept of his/her project specifically.

(2) The results of the document screening and interview screening will be notified to the Proposer (Principal Investigator) regardless of whether the proposal is accepted.

(3) For the selection schedule, please refer to "4.1 Call Period and Selection Schedule." Details and changes in the plan will be posted on the program's Call for R&D Proposals website.
（https://www.jst.go.jp/ristex/proposal/proposal_2022.html）

(4) In addition to the above, please make sure that your e-mail address and phone number registered in the e-Rad are available for receiving and replying.

4.7.2 Selection System and Management of Conflicts of Interest

A Program Supervisor will make selection with the cooperation of the Assistant Program Supervisor and Program Advisor. Based on the results, JST will select Principal Investigator and projects to implement. In addition, JST may obtain the cooperation of outside reviewers as needed.

The following conflicts of interest will be managed according to JST's regulations, from the perspectives of fair and transparent evaluations and allocation of research funding.

(1) Management of conflicts of interest of persons involved in selection

To ensure fair and transparent evaluations, the following persons or parties who have conflicts of interest may be excluded from the selection process. If the Proposer has any concern about conflicts of interest between the Proposer and persons and parties involved in the selection process of the research proposal, the Proposer should describe it specifically in the application form 11.

a. Persons, who are relatives of Proposers
b. Persons or parties who are affiliated with the same faculty or department at a research institution, such as university or national research and development agency, or with the same company as the Proposers.
c. Persons, who are conducting a close collaboration in a research work with Proposers. (Persons who are recognized as those practically affiliated with a research group with which Proposers are affiliated, such as those who are conducting a joint research project or have co-authored a paper with Proposers, a researcher pursuing the same research objectives as Proposers, or a researcher in the Proposer's project.)
d. Persons in a close teacher-student relationship, or in a direct employer-employee relationship
e. Persons in relationships of direct competition with Proposers
f. Persons in other relationships judged by JST to represent conflicts of interest with Proposers.

(2) Management of conflicts of interest of Principal Investigator

A conflict of interest could arise with Principal Investigator when a Principal Investigator appoints Lead Joint Researchers from an institution that is related to the Principal Investigator and allocate research funds of JST to these institutes. Therefore, management for conflicts of interest between Principal Investigator and his/her related institution will be conducted in the light of necessity, rationality, and reasonableness of the relationship, in order to avoid any doubt of any third party.

"An organization that is related to the Principal Investigator" refers to any of the organizations that fall under the following categories. Items "a" and "b" are applicable not only to the Principal

Investigators but also to the spouse and the relatives in the first degree of the Principal Investigator (hereinafter referred to collectively as “the Principal Investigator etc.”).

a. An organization established based on the R&D achievement of the Principal Investigator etc. (Including the case in which the Principal Investigator etc. is not directly involved in the business management but is merely given a title such as technical consultant and the case in which the Principal Investigator etc. owns the organization’s stock.)

b. An organization in which the Principal Investigator etc. is a director (including a CTO but excluding a technical consultant).

c. An organization in which the Principal Investigator owns its stock.

d. An organization in which the Principal Investigator is rewarded for implementation.

For a research proposal in which a researcher who belongs to the related organization of the Principal Investigator, is assigned as a Lead Joint Researcher, it will be strictly judged from the viewpoint of necessity, rationality, and relevance.

Therefore, if a researcher from an institution related to the Principal Investigator is to be a Lead Joint Researcher, please describe it specifically in the section of the application form 11.

Furthermore, in conducting management of conflicts of interest of Principal Investigator, it may be requested to submit other materials separately.

(3) Management of conflicts of interest of JST

Adopting a company that JST has invested in (hereinafter “invested company”) for this program and allocating research funds may be considered a conflict of interest with JST (conflict of interest as an organization). Therefore, to avoid any doubt of any third party, JST implements management of conflicts of interest between JST and the invested companies.

With respect to the proposals that assigns an invested company of JST as a research institution, JST will assess the necessity, rationality, and adequacy of the applicable invested company.

For that purpose, if the institution is an invested company of JST, the application must complete the Notice section of the application form 1 to declare that an invested company is included in research institutions.

Furthermore, this management is implemented to guarantee the fairness and transparency of the process on the side of JST. It is not disadvantageous to have accepted funds from JST in the process of the adoption in this program. Proposers are asked to be cooperative in JST's management of

conflicts of interest.

*Refer to the following website for invested companies of JST. Furthermore, companies for which investment has been completed are not subject to management of conflicts of interests; thus, reporting is not required.

https://www.jst.go.jp/entre/en/result.html

*The declaration base date is the date the Call for R&D Proposals of this program begins. Please declare companies that have disclosed an investment from JST as of this date. There is no need to report companies for which an investment has not been disclosed even if an unofficial decision has been made because it is a confidential matter internally for JST.
Please refer to the following website for JST's disclosure of investments.

https://www.jst.go.jp/entre/news.html

4.8 Notes on Selection

The selection process will decide which proposals to adopt after a comprehensive review, emphasizing the following points. Please refer to "Chapter 2 Concept of Program Supervisor in Solicitation and Selection" and "Chapter 3 Overview of Research and Development" when preparing the proposal document.

a. Conformity with program objectives and contribution to program goals

The proposed content (issues, goals, R&D plan, etc.) is consistent with the purpose of this program and is expected to contribute to the achievement of the goals of this program.

b. Significances and Visions

- The specific problems related to the prevention of social isolation and loneliness need to be solved, and their social background and causes are presented appropriately.
- The vision of what kind of social isolation and loneliness is targeted for prevention and what society is being aimed for is clear and appropriate.
- The originality of the proposed research and development is specifically described, and it is challenging in light of the movement of the related R&D and engagements in Japan and abroad.

c. Adequacy of Plan

- The goals to be achieved are appropriately set, including outcomes.
- The plan (budget scale, period, milestone setting, PDCA, and other processes) is appropriate for achieving the goal.
- Bottlenecks such as challenges, barriers, and difficulties in achieving project goals, including the implementation of PoC, are envisioned, and specific measures to address them are discussed.
- The R&D plan is appropriate to respond to social trends.
- The plan is to receive feedback from a variety of stakeholders. In addition, at each milestone of the research and development, the plan is to make public announcements about collecting reasonable opinions from outside and about correcting points that need to be improved.

d. Adequacy of implementation system

- The proposed researcher has sufficient experience in project implementation and the necessary clues to realize the concept.
- To promote R&D elements 1), 2), and 3) of “3.2 R&D Focus” in an integrated way, a sufficient collaboration system among researchers in HSS and S&T and various stakeholders involved in society such as the sites, has been established or is expected to be established by the start of the Full-Scale R&D period.
- To implement PoC, a system for demonstrating the effectiveness of the developed measures to prevent social isolation and loneliness in specific regions, schools, workplaces, communities, etc., in Japan must be structured or expected to be acquired by the Full-Scale development R&D period begins.
- A sustainable structure in terms of human and financial resources is being considered, with a view to development after the completion of implementation period.
- The project management is expected to be flexibly handled and effective.

e. Impact of R&D results and their potential for deployment

- The impact of the proposed R&D results (creating academic and public value, contribution to current and future social and industrial needs, influence and development to other fields and regions in Japan and abroad, etc.) and contribution to the achievement of the SDGs (Sustainable

Development Goals) are expected.

In the selection and adoption of projects, consideration will be given to the following points in addition to the type of social isolation and loneliness, and field of the project.

- From an international perspective, the proposed project is expected to produce and disseminate results that are meaningful on a global scale, positioning itself within the context of domestic and international research trends.

- Young and/or female researchers are expected to actively participate in the project as part of human resource development.

4.9 Other Considerations

*Proposal documents with defects may not be reviewed by JST.

*Whether the R&D budget corresponds to unreasonable duplication and excessive concentration is an element of the selection. For details, please refer to “6.2 Measures against Unreasonable Duplication and Excessive Concentration.”

Inquiries and Other Matters

（1）Posting of Application Guidelines and where to submit the proposal

Application Guidelines and latest information	Solution-Driven Co-creative R&D Program for SDGs (SOLVE for SDGs) Social Isolation Framework Website for Call for R&D Proposals https://www.jst.go.jp/ristex/proposal/proposal_2022.html
Application Guidelines and submission of proposals	Cross-ministerial R&D Management System (e-Rad) website https://www.e-rad.go.jp/en/

（2）Inquiries

Questions concerning the Call Programs, and procedures for preparation of application documents and submission, etc.	Research Institute of Science and Technology for Society (RISTEX), Japan Science and Technology Agency (JST) (For general inquiries) e-mail：boshu@jst.go.jp (For applications) e-mail：boshu-koritsu@jst.go.jp Please contact us by e-mail.
Questions concerning the Cross-ministerial R&D Management System (e-Rad) Registration of research institution or researcher, or how to operate e-Rad, etc.	e-Rad helpdesk Tel: 0570-057-060 (navi dial) (9:00-18:00/Except on Saturdays, Sundays, holidays, and the year-end and new year period)

*JST will not answer any questions regarding the status of review or acceptance.

*JST and the e-Rad helpdesk will be extremely busy before the application submission deadline (proposal deadline). Be sure to make inquiries with adequate time until submission.

Chapter 5. Promotion of R&D in Science and Technology for Society

5.1 Implementation Plan

a. Once a proposal has been selected, the Principal Investigator must prepare an overall R&D plan covering the entire period of the R&D project. The Principal Investigator must also prepare annual R&D plans for each year of the project. R&D plans should contain both budgets and the composition of R&D teams. Proposed R&D budgets are examined during the selection process. Actual R&D budgets will be confirmed by the Program Supervisor when R&D plans are formulated before going through an approval process.

b. R&D plans (overall R&D plans and yearly R&D plans) will be confirmed by the Program Supervisor before going through an approval process. Based upon advice from the Assistant Program Supervisor and Program Advisor, the Program Supervisor is to exchange opinions with the Principal Investigator, monitor the day-to-day progress of the project, perform site visits, provide advice and coordination for the R&D plan, and provide guidance to the Principal Investigator as required.

c. The Program Supervisor may, as necessary to achieve the overall aims of this program, make adjustments between separate projects when determining project plans.

d. The period of the project may be shortened, and the R&D budget may be reduced or canceled at the discretion of the Program Supervisor.

* R&D team compositions and budgets set forth in R&D plans may be revised during the research project period in response to the overall R&D program budget conditions and management actions taken by the Program Supervisor.

5.2 Implementation Team Composition

a. The Principal Investigator will lead R&D activities. In order to realize research initiatives, the Principal Investigator may have individuals engaged in problem resolution participate as project members (from several to around 20 individuals) in order to construct an ideal organization (group) for the project's implementation. The project members may also consist of individuals from institutions other than the Principal Investigator's affiliated institution.

b. When constructing implementation teams, it is required to clarify each group's roles and the content of the R&D to be conducted before start of the project.

c. JST will enter into a Collaborative Research Agreement with the institution that the executor of the budget (Principal Investigator or Lead Joint Researcher) is affiliated with.

d. If necessary as R&D progress, new project members (or other assistants, etc.) may be employed to participate in the project within the scope of the R&D budget.

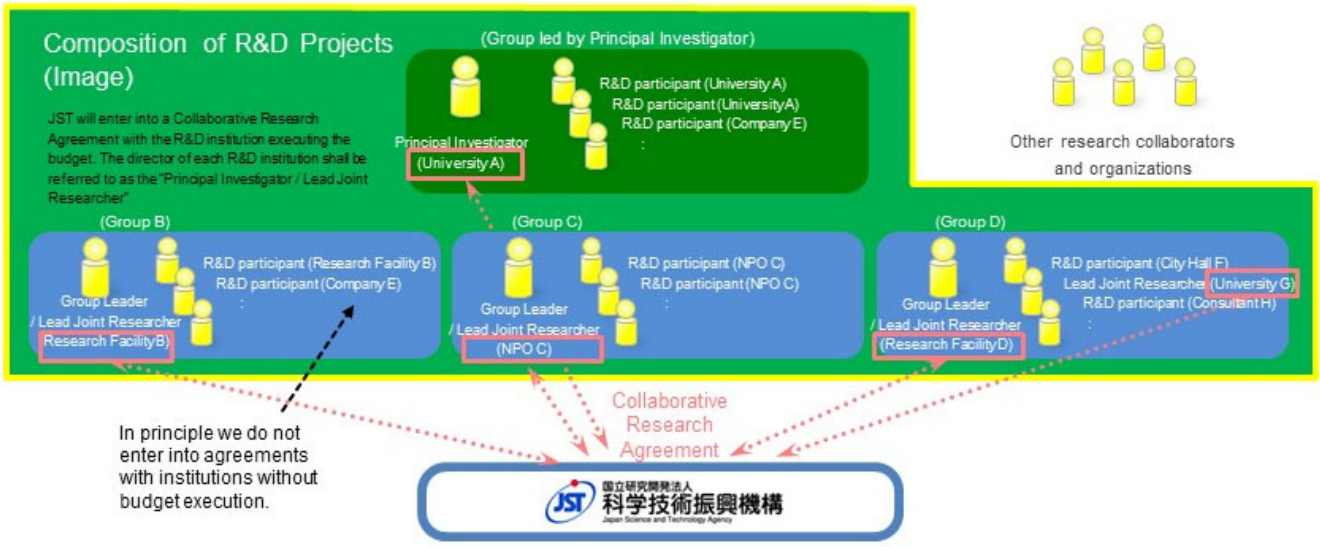


Figure: Composition of R&D Projects

5.3 Place of Implementation

In principle, the R&D will be implemented at the research institutions that the R&D participants are affiliated with.

5.4 Collaborative Research Agreement

a. After adoption, JST will enter into a Collaborative Research Agreement with the R&D institutions that those leading the research (Principal Investigator and Lead Joint Researcher) are affiliated with.

b. If it is not possible to enter into a Collaborative Research Agreement with the research institution or create the management and audit systems required in connection with the use of public funds, or if the institution is conspicuously financially unstable, it may not be possible to pursue R&D at the research institution in question. For more details, please refer to "5.9 Responsibilities of Research Institutions"

c. In principle, patents and other intellectual property rights resulting from research shall, in accordance with the terms of the Collaborative Research Agreement, reside with the affiliated research institution under the condition that the institution abides by the items provided in Article 17 (Japanese version of the Bayh-Dole Act) of the Industrial Technology Enhancement Act. However, this rule does not apply to foreign research institutions.

(Supplement) Differences Between Commissioned Projects and Subsidized Projects

This program is implemented as commissioned projects by concluding Collaborative Research Agreements between JST and the institutions. In “commissioned projects,” the Japanese government (in this case, JST) entrusts projects which should be originally conducted by themselves to other third-party including universities and private firms by concluding Collaborative Research Agreements with them, when it is assumed to produce more beneficial results rather than by being conducted by themselves. In this situation, the institution consigned to do the project has an obligation to appropriately perform all consigned duties in line with the Collaborative Research Agreement and administrative manuals, and those who consigned will confirm this.

By comparison, “subsidized projects” refers to having the government, etc., cover a portion of expenses incurred by the projects being performed by universities, private firms, or another third party, that are recognized to have some benefits to the public at large. In this situation, the party that received the subsidy implements the project independently.

5.5 R&D Budget

As per the Collaborative Research Agreement, JST will pay the institution implementing the project for all R&D budget (direct costs) and indirect costs (in principle, 30% of direct costs). This will be paid as consigned research funds.

5.5.1 R&D Budget (Direct Costs)

The R&D budget (direct costs) directly relates to R&D required to implement the project and can be used for the following items.

a. Commodities: Cost of purchasing new facilities (*1), equipment, consumable supplies, etc.

b. Travel Expenses: Expenses for travel by the Principal Investigator, Lead Joint Researcher and

other R&D participants listed on the research plan created after adoption. Expenses covered include all direct costs for travel, as well as all invitations for travel, etc. directly related to pursuing the R&D in question.

c. Personnel Expenses: Salaries (*2) and honorariums for all researchers, technicians, research assistants, etc. (excluding Lead Joint Researchers), directly required to implement the research in question, as well as honorariums for speakers at lectures, etc.

d. Other Expenses: Costs for presenting research results (research paper submission fees, etc.), costs for leasing and transferring equipment, etc.

Note: The following are examples of items not handled as research costs (direct costs).

- Costs for items not consistent with the research objectives
- Costs that are considered to be more appropriately treated as overhead costs (indirect costs)
- Costs that JST determines are not appropriate when settling consigned research funds. (*3)

(*1) The purchase of new research equipment and apparatuses shall proceed according to “Research Equipment and Apparatus Sharing Systems for Research Organization Units” (hereinafter referred to as “apparatus sharing systems”), which are indicated to be operated in “Introduction of New Research Equipment and Apparatuses Operating Integrally with Research Organization Management” (Advanced Research Fundamentals Working Group, Scholarship Commission, November 2015). Please refer to “6.12 Promotion on Effective Use of Research Facilities and Equipment.”

(*2) In principle, at universities and other institutions, JST enables to pay for personnel expenses of the Principal Investigator (hereinafter referred to as “PI”) of projects funded by JST competitive research funding programs and for costs related to others to execute non-research operations on behalf of the PI (Buyout Expenses) only when specific requirements are met.
For more details, refer to the JST official administrative manuals at the URL below.

“Review to Enable Payment of Expenses for Others to Execute Non-research Operations from Direct Costs (Buyout System Introduction) and Payment of the Personnel Expenses of the Principal Investigator (PI) from Direct Costs (Contact)” (September 17, 2020)

https://www.jst.go.jp/osirase/2020/pdf/20200917.pdf

Please refer to the following URL for the policy on the scope of eligibility, expenditure ceiling, etc. for the RISTEX R&D Programs.
https://www.jst.go.jp/ristex/funding/funding_outline/for_researcher.html

(*3) JST has established rules and guidelines specific to this program for some items, based on the Collaborative Research Agreement, administrative manuals, and the cross-ministerial expenses handling table, etc. Handling may differ between universities, etc. (universities, public R&D institutions, public interest corporations, etc. approved by JST) and companies, etc. (mainly R&D institutions other than universities, etc., such as private enterprises). For more details, refer to the JST official administrative manuals at the URL below.

JST Collaborative Research Agreement Administrative Manuals
https://www.jst.go.jp/contract/index2.html
Handling Table for Cross-Ministerial Expenses (JST RISTEX R&D Programs)
https://www.jst.go.jp/contract/download/2022/2022_ristex_betten9.pdf

5.5.2 Overhead (Indirect) Costs

Overhead (indirect) costs are costs required for the management, etc. of research institutions pursuing R&D; they are, in principle, capped at 30% of direct costs. According to “Common Guidance for the Execution of Indirect Expenses of the Competitive Fund” (agreed upon by the coordination committees of relevant ministries and agencies on April 20, 2001, and amended on October 1, 2021), a research institution shall create a policy on use, etc. and shall systematically and properly execute the policy to ensure that use of indirect costs is transparent.

5.5.3 Multiple-year Contracts and Carryover

JST allows for multiple-year contracts, as well as for consigned research funds and procurement contracts to be carried over into subsequent fiscal years. This is from the perspective of ensuring research expenses are used effectively and efficiently to maximize research results and to prevent

unauthorized use. However, different conditions apply for universities and businesses when performing carryovers (there may be cases where concluding a multi-year contract and carrying over research expenses are impossible at some institutions due to incompatible administration systems).

5.6 Reports

The fiscal year and final reports form the basis of the reports to be made in writing. However, we may ask for separate reports as necessary. In addition, please note that the annual report also affects approval of the plan in the next fiscal year.

Moreover, depending on the progress of the project, if, for example it becomes difficult to continue R&D or if it becomes possible to execute the business plan at an earlier stage than the initial R&D plan, so that support from JST is no longer necessary, we may ask you to revise your R&D plan or to change your R&D period (including the discontinuation of R&D) through management by the Program Supervisor, Assistant Program Supervisor and Program Advisor.

We also place importance on reports and public relations in a form that is widely open to diverse stakeholders in addition to those for the Program Supervisor, Assistant Program Supervisor, Program Advisor and the Secretariat in regard to project progress reports. Please consider building a structure in which it is possible to disseminate information in a timely manner using booklets and social networking sites.

5.7 Evaluation

(1) Evaluation of the Program

This program will be evaluated after a certain period has passed (interim, post).

(2) Evaluation of Projects, etc.

- A Program Supervisor will select proposals with the cooperation of the Assistant Program Supervisor and Program Advisor. In addition, after starting the Small Start R&D, a Stage-Gate evaluation of the project will be conducted by the end of FY2023 to determine the measures to be taken to resolve bottlenecks such as challenges, barriers, and difficulties in promoting elements of R&D 1), 2), and 3) of “3.2 R&D Focus” in an integrated way up to PoC, and the feasibility of the project afterward. Projects that are judged to be appropriate for continuation will, in principle, conduct research and development for about three years (Full-Scale R&D) after optimizing the details and system of the implementation.

・For all projects, a post-evaluation will be conducted by the Program Supervisor in cooperation with the Assistant Program Supervisor and Program Advisor and others when the research and development have been completed.

・If further improvement in the potential for establishing and deploying Full-Scale R&D outputs is expected, the R&D period can be extended up to two years after evaluation.

・A follow-up survey will be conducted after a certain period following the completion of the research and development.

(3) Evaluation Criteria of Stage-Gate

The Stage-Gate evaluation criteria for the transition from the Small Start period to the Full-Scale R&D period are as follows. (Evaluation will be made comprehensively based on the items a. to c.)

a. Progress of R&D

・Whether or not R&D results from the Small Start period are steadily produced.

・Based on the mutual understanding of the needs and issues of both the research side and the site's side where the measures will be implemented based on the results of R&D in the Small Start period, whether the plan for the integrated promotion of elements of R&D (1), (2) and (3) of “3.2 R&D Focus,” and the implementation of PoC has been organized.

・When there has been consolidation and reorganization between teams within a project or between projects, whether their effects and plans have been well organized.

b. R&D Implementation Structure

・To promote elements of R&D (1), (2), and (3) of “3.2 R&D Focus” in an integrated way, whether a sufficient collaboration system has been established among researchers in HSS and S&T, as well as various parties involved in society, such as the sites where the measures will be tested.

・For PoC implementation, whether a mechanism is in place to demonstrate the effectiveness of the developed measures to prevent social isolation and loneliness at sites where the measures are implemented, such as specific regions, schools, workplaces, and communities, etc. in Japan.

c. Impact of R&D Results

・Whether or not the path is drawn for the future impact of the R&D results (creation of academic and public value, contribution to current and future social and industrial needs, influence and development to other fields and regions in Japan and overseas, etc.) and the contribution to the achievement of the SDGs (Sustainable Development Goals).

5.8 Responsibilities of Principal Investigator and Lead Joint Researchers

(1) The Principal Investigator and Lead Joint Researchers are obliged to conduct their research, honestly and effectively, fully understanding that their research is funded by tax revenues collected from citizens.

(2) After their projects are approved, Principal Investigator and Lead Joint Researchers must agree to fulfill the following duties presented to them at JST briefings, etc., and submit a written agreement to JST.

a. Comply with requirements for application guidelines and regulations of affiliated institutions.

b. Understand that JST R&D budgets are funded by tax revenues. For this reason, they must avoid any research misconduct, including fabrication, falsification, and plagiarism, and/or the improper use of R&D funds.

c. Ensure that all implementers and other individuals participating in the R&D project are fully informed of the JST designated Educational Program on Research Integrity (eAPRIN (previously CITI Japan) e-learning program) and have enrolled in and completed the program. For details, refer to “6.1 Enrolling in and Completing the Educational Program on Research Integrity.”

Note that failure to complete the Educational Program on Research Integrity in c. will result in the suspension of the R&D budget until it has been completed, and this has been confirmed by JST.

(3) The Principal Investigator and other R&D participants must complete the JST designated Educational Program on Research Integrity (eAPRIN (previously CITI Japan) e-learning program).

(4) Project promotion and management

These individuals are also entirely responsible for project progress and management. After clarifying the roles and responsibilities within the project, the Principal Investigator and Lead Joint Researchers will play a leading role in steadily promoting the project and coordinating unified results. These individuals will need to submit required plans and reports, etc. to JST (including the Program Supervisor), conduct project strategy meetings or site visits to confirm the strategy and progress of the project, and respond to evaluations, etc. The Principal Investigator and Lead Joint Researchers will also need to submit reports on the progress of the R&D when requested by the Program Supervisor.

(5) R&D budget management

The Principal Investigator is responsible for managing R&D costs for the entirety of the project (spending plans and progress, etc.) together with the research institution implementing the project. In the same manner, the Lead Joint Researchers are also responsible for managing the R&D budget for their groups along with the institution implementing the project.

(6) Considerations regarding R&D participants hired as part of the project

Please ensure that necessary consideration is given to the working conditions for implementers recruited to participate in the project, especially those employed using the R&D budget. Factors should include the R&D environment, working environment, and conditions of work.

(7) Participation in program activities

Active involvement in JST-organized program activities designed to meet the goals of the program (events including on-site lodging and symposiums) and cross-project initiatives is required.

(8) Outreach activities for R&D results

Since R&D activities are funded by the government, active disclosure of R&D results is expected both within Japan and overseas, taking into account the acquisition of intellectual property rights. If the results obtained are to be published in newspapers or magazines, or in a thesis, etc., details about the implementation of the project, as well as a statement stating that they are the results of the RISTEX R&D Programs must be provided. Participation in and presentations of findings at workshops and symposiums hosted or backed by JST in Japan and around the world is also required.

Participation in RISTEX's ‘Human Network for Collaboration Between Researchers and Collaborators to Solve Social Problems’ is required, along with cooperation relating to disseminating and sharing information, as well as planning and holding workshops and symposiums, etc.

(9) All matters related to the project must be performed in-line with the contract between JST and the research institution, along with JST's rules and regulations.

(10) Cooperation with project evaluations, JST accounting audits, and national audits is also required.

(11) Information must be provided, and interviews conducted that allow for the assessment of programs (both interim and post-evaluation) and follow-up investigations conducted after a certain period of time has elapsed since the completion of the project.

5.9 Responsibilities of Research Institutions

Research institutions must fully recognize that consigned research funds are paid using public money. They must ensure compliance with related laws and make efforts to implement research effectively. Research institutions that cannot perform their responsibilities, as described below, will not be permitted to conduct R&D. Researchers are therefore requested to obtain consent from all research institutions where their R&D is going to be implemented before applying.

a. Research institutions are obliged to enter into a Collaborative Research Agreement with content provided by JST. They are also required to properly implement their R&D in accordance with the Collaborative Research Agreement, administrative manuals, and R&D plan. The research institution shall not be permitted to perform R&D if it cannot enter into a Collaborative Research Agreement with JST, or it is determined that it cannot suitably perform the R&D in question.

   ※ A model of the Collaborative Research Agreement can be found at the following URL: https://www.jst.go.jp/contract/index2.html

b. Research institutions are responsible for creating a framework to manage and audit public research funds. They are also obligated to properly execute their consigned research funds in accordance with the “Guidelines for the Management and Audit of Public Research Funds in Research Institutions (Practice Standards)” (decided by the Minister of Education, Culture, Sports, Science and Technology on February 15, 2007; revised on February 1, 2021). In addition to reporting the status of their management and audit system for public research budgets to the Ministry of Education, Culture, Sports, Science and Technology, research institutions are also obliged to cooperate with any investigations into the implementation of their system. (See: 6.26 Consideration on “Guidelines for the Management and Audit of Public Research Funds in Research Institutions (Practice Standards)”).

   https://www.mext.go.jp/a_menu/kansa/houkoku/1343904_21.htm

c. In accordance with the “Guidelines for Responding to Misconduct in Research” (adopted by the Minister of Education, Culture, Sports, Science and Technology on August 26, 2014), research institutions are responsible for implementing regulations and systems required to prevent misconduct. Research institutions are also responsible for cooperating with any investigations relating to these systems based on these guidelines. (See: 6.27 Consideration

on “Guidelines for Responding to Misconduct in Research”)

https://www.mext.go.jp/b_menu/houdou/26/08/1351568.htm

d. Research institutions are responsible for ensuring that those participating in R&D are aware of the content of the guidelines described in b. and c. and are provided with training based upon educational materials related to research integrity provided by JST.

e. Research institutions shall manage spending/management of R&D budgets properly in accordance with the regulations of the research institution while still maintaining reasonable flexibility. Institutions must also follow any special expenditure rules for the project defined in administrative manuals, etc., provided by JST. (Research institutions receiving Grants-in-Aid for Scientific Research may deal with consigned research funds for which there are no definitions in the administrative manuals, based upon the Grants-in-Aid guidelines for the institution in question.)

f. Research institutions must enter into contracts with researchers who will be implementing R&D and will be inventors of intellectual property relating to the R&D. This is to ensure the properties are transferred from these researchers to the institutions. In particular, appropriate action must be taken when an individual who is not subject to the Research institution’s regulations regarding inventions (such as a student who is not an employee of the institution) participates in the R&D. This could include entering into a contract with the student in advance to ensure that intellectual property rights pertaining to inventions (including their conception) produced by the student during the R&D belong to the research institution (except in cases where it is clear that the student cannot become the inventor). Conditions of compensation for the transfer of intellectual property rights should not be unfavorable to the student who made the invention.

In principle, the prior approval of JST is required to transfer or provide exclusive licenses to use intellectual property to other persons or parties, etc. A prior report to JST is also needed when applying for, registering, implementing, or renouncing property rights.

JST must be notified of intellectual property produced by research institutions through the contract for R&D with JST. Any required applications must also be made, as per Article 17 of the Industrial Technology Enhancement Act. This applies even after the contracted R&D period ends.

g. Research institutions are responsible for cooperating with accounting investigations performed by JST and with government accounting audits.

h. Research institutions are obliged to obey measures pertaining to changes to methods of payment of consigned research funds as well as decreases to R&D budgets decided by JST, based on JST's investigations of their administrative management systems, financial conditions, etc.

In addition, if project evaluations performed at the end of the JST's mid- to long-term target period requires that JST be dissolved or reduced in size, or if changes to the government's budgetary measures are made, as per the special terms in the Collaborative Research Agreement, the contract may be canceled, or reductions in consigned research funds may be made. Based on the results of the mid-term evaluations of the project, measures such as increases or decreases to consigned research fund payments, changes to the contract period, cancellation of research, etc., may be made. If JST judges that the continuation of research is not appropriate, JST may take measures such as canceling the contract, regardless of any remaining time left in the contract itself. Research institutions are required to follow these measures.

i. If the research entering into the Collaborative Research Agreement is a national or municipal organization, the institution itself is responsible for ensuring that necessary budgetary measures are put in place prior to the start of the Collaborative Research Agreement period. (If it becomes clear that these required procedures were not performed after the agreement is entered into, the Collaborative Research Agreement may be canceled, with any consigned research funds to be repaid.)

j. As a part of efforts to prevent misconduct in R&D activities, JST requires researchers who will take part in newly approved research projects and are affiliated with the research institution, to enroll in and complete an educational program on research integrity (procedures required for enrollment will be handled by JST.) Research institutions are responsible for ensuring that relevant individuals enroll in and complete the program.

If these individuals fail to complete the program as stipulated despite repeated reminders by JST, JST instructs to the research institution to halt, partially or entirely, the payment of consigned research funds. The institution is to stop all use of the R&D budget and must not recommence using them until further notice from JST is given.

k. Necessary measures are to be put in place regarding intellectual property, confidentiality, etc., such as joint research agreements, with research institutions participating in the project, to the

extent that these do not infringe on the Collaborative Research Agreement with JST. This is to prevent impediments to the appropriate implementation of R&D and the utilization of R&D results.

l. As consigned research funds are government resources, proper processes should be put in place to ensure they are used economically, efficiently, effectively, legitimately, and accurately, in a way that allows for accountability regarding this usage. Funds should be used in a planned manner. Procurement for the purpose of using any remaining budget at the end of the R&D period or at the end of the fiscal year is to be avoided.

5.10 When a Person Belonging to an Overseas Institution Participates as the Lead Joint Researcher

Individuals belonging to overseas research institutions can participate in the project while being based at the overseas institution (however, the Principal Investigator is required to belong to a domestic research institution. Please refer to “4.5 Requirements for Application” for more details). Research institutions that cannot perform their required responsibilities will not be permitted to conduct R&D. Researchers are therefore requested to obtain consent from the institutions where their R&D is going to be implemented before applying.

a. If the individual is deemed to be crucial for the Principal Investigator’s research initiative and it will be difficult (not possible) to implement the project without the overseas institution’s participation.

b. Research institutions are obliged to enter into a Collaborative Research Agreement with content provided by JST. (We may adjust the agreement terms for matters for which it is considered that there are reasonable grounds to do so in consideration of the characteristics of the research content.) Indirect costs paid will be a maximum of 30% of direct costs. They are also obliged to properly implement their R&D, in accordance with the Collaborative Research Agreement and R&D plan. The research institution shall not be permitted to perform research if it cannot enter into a Collaborative Research Agreement with JST, or it is determined that it cannot suitably perform the R&D in question.

c. In cases where either the Collaborative Research Agreement and JST specify separate guidelines, etc., the research institution will be responsible for managing expenditure and research expenses in an appropriate manner based on these guidelines. The institution is also

required to prepare and submit a detailed statement of expenses (equivalent to an income and expenditure book for domestic institutions) in English that provides details of research expenses. The research institution must, even during the period of the agreement, cooperate with all investigations into expenses, etc., by JST, as requested.

d. The intellectual property rights resulting from research and development will be transferred to JST free of charge or shared equally with JST. In equal sharing, the research institution is obliged to equally bear with JST the expenses necessary to apply for action to protect and maintain intellectual property rights. (Article 17 of the Industrial Technology Enhancement Act (Japanese version of the Bayh-Dole Act) does not apply to overseas research institutions. As a result, any invention that may become intellectual property must be reported to JST immediately (within ten business days).

*Due to Security Export Controls, JST may not enter into Collaborative Research Agreements with institutions published on the “Foreign User List[1]” by the Japanese Ministry of Economy, Trade and Industry (METI).

5.11 Other Considerations

5.11.1 Systems for Childbirth, Childcare, Care Giving

As part of its efforts to promote equal participation from men and women, JST has implemented support systems for childbirth, childcare, and caregiving. This system provides a “Gender Equality Promotion Fund” (maximum amount: 300,000 yen per month x number of months of support) for R&D projects, etc., with the aim of enabling full-time researchers who are employed through projects being funded by JST (excluding indirect costs) to continue their research in the midst of life events (childbirth, childcare, nursing care), or to continue their careers from the time they return to research if they have to suspend their research.

Please see the following websites for details:

https://www.jst.go.jp/diversity/about/research/child-care.html

5.11.2 Using the JREC-IN Portal

The database of researchers and research staff (JREC-IN Portal https://jrecin.jst.go.jp/) is the

*1 METI has issued the “Foreign User List” with the aim of strengthening the effectiveness of a catch-all control on goods related to weapons of mass destruction.
https://www.meti.go.jp/policy/anpo/law05.html#user-list

largest website for recruiting researchers in Japan. The service contains information on human resources, including researchers, supporting staff, as well as engineers involved in research. The database is completely free to browse.

The database currently holds more than 19,000 pieces of information on human resources from universities, public research organizations, and private business firms, and has more than 130,000 registered users. In addition, it is possible to simplify the management of the application documents by using the Web application function of the JREC-IN Portal. At the same time, this can also reduce the burden on job applicants. We hope you'll make use of the JREC-IN Portal to search for human resources (postdoctoral, researchers, and so on) with high levels of knowledge when recruiting for research projects.

JREC-IN Portal is linked with researchmap, and its resume and achievement list creation function enable you to easily create resumes using the information registered in researchmap.

Chapter 6. Key Points in Submitting Proposals

6.1 Enrolling in and Completing the Educational Program on Research Integrity

The R&D project applicant (= the Principal Investigator) must complete the Educational Program on Research Integrity as a prerequisite for application. Note that if completion of the program cannot be confirmed, the application will be disqualified for failing to meet the requirements (Enrollment in and completion of the research integrity educational program by the time of application is not a prerequisite for those other than the Principal Investigator.)

To enroll in the Educational Program on Research Integrity and to submit a declaration of completion, follow either procedure (1) or (2) below. For application instructions using e-Rad, refer to “Chapter 7 Submission via the Cross-ministerial R&D Management System (e-Rad).”

（1） For applicants who have completed an equivalent program at their institution

Applicants, who have already completed an e-learning program or educational seminar on various aspects of research integrity (including eAPRIN (ex-CITI Japan) e-learning program and JSPS e-Learning Course on Research Ethics) at your institution by the time of their application, are requested to make the declaration of it on the e-Rad application information input screen.

（2） For applicants who have not completed an equivalent program at their institution (including applicants at institutions who do not have such a program)

a. Applicants who have in the past completed eAPRIN (ex-CITI Japan) e-learning program in a JST program: Applicants who have in the past completed eAPRIN (ex-CITI Japan) e-learning program in a JST program by the time of their application are requested to make the declaration of it on the e-Rad application information input screen.

b. For other applicants for whom a. above does not apply: Applicants who find it difficult to enroll in the educational program for research integrity because their institution does not offer such a program or for other reasons may enroll in and take a digest version of eAPRIN (ex-CITI Japan) e-learning program offered through JST. Please attend from the URL below.

https://edu2.aprin.or.jp/ard/

No cost is needed for completing the program, which will take one to two hours to complete. Once enrolled, applicants are expected to complete the program without delay and then to declare the completion of the program and to also enter the number of the completion confirmation sheet (7 figures number + ARD) in the e-Rad application information input screen.

* If the course completion date is before August 2019, the number will start from Ref #.

■Contact for consultation on the Educational Program on Research Integrity
Research Integrity Division, Department of Legal Affairs and Compliance,
Japan Science and Technology Agency (JST)
E-mail： rcr-kousyu@jst.go.jp

■Contact for consultation on the call for application
Research Institute of Science and Technology for Society (RISTEX),

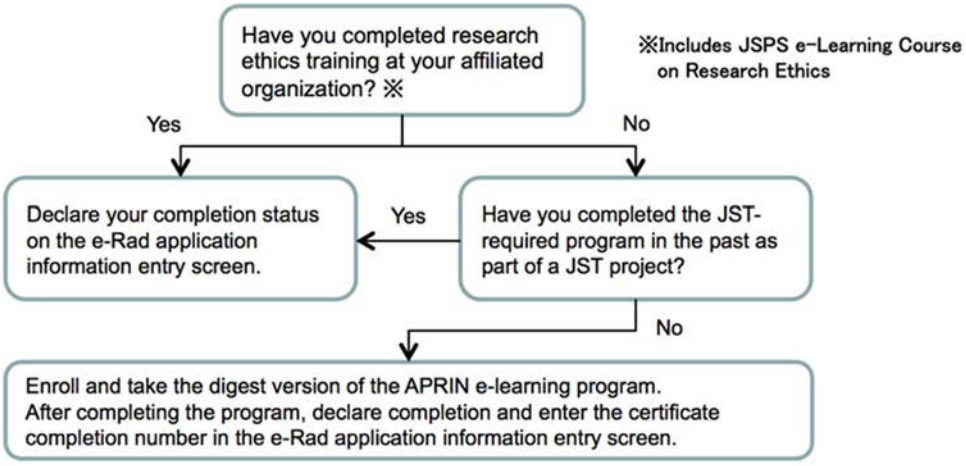
Japan Science and Technology Agency (JST)
E-mail：

(For applications) boshu-koritsu@jst.go.jp

(For general inquiries) boshu@jst.go.jp

* Include the program name, e-Rad's proposal ID, research applicant name and project name in the body of email.

<Flow chart for Reporting Completion of Research Ethics Education Programs>



JST requires researchers of the projects to enroll in and complete designated units of the eAPRIN (ex-CITI Japan) e-learning program. All researchers of an accepted proposal are required to complete the designated units of the eAPRIN (ex-CITI Japan) e-learning program (excluding those who have already completed the designated modules at their institution or in another JST program).

6.2 Measures against Unreasonable Duplication and Excessive Concentration

○Measures against "Unreasonable Duplication"

If a given R&D project by a given researcher (i.e. the name and content of the R&D project are the same, and the R&D project is receiving competitive research funding) is unnecessarily receiving multiple competitive research funding programs or other research funds (all current research funds for individual research subjects, such as subsidies, grants, joint research funds, contract research funds, etc., including those from overseas (*)), and any of the following applies, the R&D projects may be rejected, canceled or reduced (hereinafter referred to as "rejection of R&D projects") depending on the degree in this program.

- In the case that a duplicate application is made for multiple competitive research funds or other

research funds at the same time for an R&D project that is essentially the same (including cases where they overlap to a considerable extent; the same as hereinafter), and they are selected more than once.

- In the case that there are applications for multiple competitive research funds and other research funds at the same time for an R&D project that are substantially the same, and they are adopted more than once.
- In the case that there are multiple applications for the R&D projects that are substantially the same as the competitive research funds or other research funds that have already been selected and funded.
- In the case that there is an overlap in intended application of research funding between multiple R&D projects.
- Other cases equivalent to the above.

At the application stage for this program, there are no limitations regarding the submission of proposals to other competitive research funding programs or other research funds. If an R&D project is selected by another competitive research funding program or other research funds, report this promptly to JST at the contact address (boshu-koritsu@jst.go.jp). If there is any omission in this report, there is a possibility that the R&D project will be rejected in this program.

* Excludes basic expenses or internal funds that are allocated within the institution to which the company belongs, commercial activities stipulated by the Commercial Code, and financing through direct or indirect financing.

○**Measures against “Excessive Concentration”**

Even if the content of the research proposed for this program differs from the content of another research being carried out under another competitive research funding program or other research funds, in the case that the overall research funding allocated to the same researcher or research group (hereinafter referred to as “researchers”) in relevant fiscal year exceeds an amount that can be utilized effectively and efficiently and can be used within the research period, in this program, the R&D projects may be rejected in accordance with the degree of the following cases.

- In the case that an excessive amount of research funding is being received in light of the capabilities of the researchers and the research methods being used, etc.
- In the case that an excessive amount of research funding is being received, compared with

the amount of effort (percentage of the researchers' overall working time* that is required for carrying out the said research project) allocated to the R&D project.

- In the case that highly expensive research equipment is purchased unnecessarily.
- Other cases equivalent to the above.

For this reason, after submitting your application to this program, if you submit proposals to other competitive research funding programs or other research funds, and the R&D project is selected by them, or if any information provided in your application changes, please report this promptly to JST at the contact address (boshu-koritsu@jst.go.jp). If reporting is omitted, the approval decision for the R&D project may be revoked.

*The total work time of a researcher includes the time not only for research activities but also for teaching activities, management assignments, and other activities substantially equivalent to work.

○**How to Eliminate Unreasonable Duplication and Excessive Concentration**

To eliminate unreasonable duplication and excessive concentration of competitive research funds, ensure transparency in research activities, and ensure appropriate efforts, applicants shall provide the following information at the time of application.

(i) Providing information on the current application / acceptance status of other competitive research funds including those of other ministries and other research funds, and all current affiliated institutions / positions.

At the time of application, regarding the Principal Investigator / Lead Joint Researchers, the current application / acceptance status of other competitive research funds including those of other ministries and other research funds (program name, R&D subject, implementation period, budget amount, effort, etc.) (Hereinafter referred to as "information on research funds") and information on all current affiliated institutions / positions (including side jobs, participation in foreign recruitment programs, honorary professors without employment contracts, etc.) (hereinafter referred to as "information about your institution / position") are required to be provided in the application documents and the Cross-ministerial R&D Management System (hereinafter referred to as "e-Rad"). If the application documents or e-Rad contain false statements, the R&D project may be rejected.

Of the information on research expenses, information on joint research with which confidentiality agreements have been signed will be handled as follows in consideration of individual circumstances so that activities such as industry-academia collaboration will not be shrunk.

・Only the information necessary to confirm whether the submitted R&D project does not result in unreasonable duplication or excessive concentration of research funds and can appropriately secure the effort related to the execution of the R&D project (in principle, information of the joint research such as only the name of the partner institution, the amount of research funds accepted, and information related to effort) will be requested.

・However, if it is difficult to submit the name of the partner institution and the amount of research expenses accepted due to unavoidable restrictions such as the confidentiality agreement that has already been concluded, it is possible to submit the application without the information. Even in that case, JST may make inquiries to the institution to which you belong if necessary.

・In addition to the affiliated institution, information may be shared between distribution institutions and related ministries and agencies, but even in that case, it will be shared only by those who have a duty of confidentiality.

When concluding a non-disclosure agreement, etc. in the future, please consider assuming that you may submit only the necessary information when applying for competitive research funds. However, if both contracting parties agree on the scope of information to be kept confidential and its legitimate reason (such as when it is considered to be extremely important in corporate strategy and highly confidential), it is possible to make a contract that does not assume the confidential information will be submitted.

(ii) Provision of other information necessary to ensure transparency in all research activities in which one is involved.

To ensure transparency in all research activities in which you are involved, JST requests a pledge that we are properly reporting the necessary information on research expenses, affiliated institutions and job titles, and support for facilities and equipment other than donations and funds (*) to the institution to which you belong based on the relevant regulations. If it is found that an appropriate report has not been made in violation of the pledge, the R&D project may be rejected.

Information on the acceptance status of facilities / equipment, etc. that are not used for the R&D

project of the application but are used for the research that is separately engaged does not relate to unreasonable duplication or excessive concentration. However, from the viewpoint of confirming whether an R&D project can be sufficiently carried out or not, in addition to the pledge, JST may ask the affiliated institution to submit the status of grasping and managing the information.

* Includes cases where articles such as research facilities, machines, and equipment are supplied, and services are provided even in the manner of free of charge.

○**Information on Proposal Contents Provided to Eliminate Unreasonable Duplications and Excessive Concentration**

In order to eliminate unreasonable duplication and excessive concentration, to the extent necessary, the information of some proposals (or selected projects/programs) may in some cases be provided through the Cross-ministerial R&D Management System (e-Rad) to other departments in charge of competitive research funds, including those of other government ministries.

6.3 Ensuring Research Integrity against New Risks Associated with Internationalization and Openness of Research Activities

In order to promote the creation of science, technology and innovation in Japan, it is necessary to continue to strongly promote international joint research with various partners, with open science as the main principle. At the same time, in recent years, it is pointed out that there are new risks associated with the internationalization and openness of research activities which may impair the values that form the basis of the research environment, such as openness and transparency, and there are dangers that researchers unintentionally fall into conflicts of interest and responsibilities. Under these circumstances, building an internationally reliable research environment as Japan is indispensable for promoting necessary international cooperation and exchanges while preserving the values that form the basis of the research environment.

Therefore, in accordance with “the policy for ensuring research integrity against new risks associated with the internationalization and openness of research activities” (decided by the Integrated Innovation Strategy Promotion Council on April 27, 2021), it is essential to establish rules and management systems related to conflicts of interest and responsibilities, and autonomously ensure the soundness and fairness (research integrity) of research at researchers, universities, research institutes, etc.

From this point of view, we are confirming whether we can appropriately secure efforts while eliminating unreasonable duplication and excessive concentration of competitive research funds and ensuring transparency in research activities. We may make inquiries to the institution to which you belong, as necessary, regarding the status of maintenance of regulations and the status of grasping and managing information.

6.4 Measures against Inappropriate Usage of Research Funds

Inappropriate use and reception (referred to as “inappropriate usage” hereinafter) of research budgets related to the ongoing R&D projects are strictly treated as described below.

○Measures Taken in the Case that Inappropriate Usage of Research Expenses are Found

(ⅰ) Measures to Cancel Contracts

The Collaborative Research Agreement contract is cancelled or altered if issues of inappropriate usage are found, and a request is made for refunding all or part of the entrusted funds. Contracts for the following year and subsequent years may not be concluded.

(ⅱ) Measures to Restrict Application and Participation Eligibility※1

Restriction measures set out in the table below, depending on the levels of inappropriate usage, are taken against the application and participation eligibility of researchers※2 (including researchers who conspired, referred to as (“researchers who conspired to inappropriate usage”)) who exercised inappropriate usage of research expenses of this program or those whose involvement in inappropriate usage is not proven but who violated due care of a prudent manager. Or, they are otherwise reprimanded.

Furthermore, the outlines of pertinent inappropriate usage (names of researchers who exercised inappropriate usage, project names, affiliations, research issues, amounts of budget, fiscal year of research, contents of inappropriate usage, contents of measures taken, etc.) are provided to persons in charge of the competitive research funds of other ministries, who may restrict application and participation of the researchers in their competitive research funding programs.

※1 “Application and participation” refers to the proposal, subscription, and application of a new project; participation in R&D as a new Joint Researcher; and participation in an ongoing R&D project as a Principal Investigator or a Joint Researcher.

※2 “Researchers who violate due care” refers to those whose involvement in inappropriate usage is not proven but who violated the duty of due care of prudent manager they should exercise.

<table>
<tr><th>Classification of person who committed or is involved in misconduct in use of research budget</th><th colspan="2">Extent of maliciousness in misconduct</th><th>Period of ineligibility for applying to competitive research fund, deemed to be reasonable*3</th></tr>
<tr><td rowspan="4">A researcher who committed a misconduct or a researcher who was in conspiracy with a person who committed a misconduct *1</td><td colspan="2">1 Use of a research budget to make a private profit</td><td>10 years</td></tr>
<tr><td rowspan="3">2 Other than 1</td><td>①Impact of the misconduct on the society is substantial and maliciousness of the misconduct is judged to be high</td><td>5 years</td></tr>
<tr><td>②Neither ① or ③</td><td>2-4 years</td></tr>
<tr><td>③ The impact of the misconduct on the society is small and the maliciousness of the misconduct is judged to be low.</td><td>1 year</td></tr>
<tr><td>A researcher who used a fabrication and other dishonest means to receive a competitive research fund or etc. and a researcher who was in conspiracy with the person who committed this misconduct</td><td colspan="2"></td><td>5 years</td></tr>
<tr><td>A researcher who did not commit or was not involved in a misconduct, but used a research budget, inappropriately, failing to fulfill his/her duty of due care of prudent manager *2</td><td colspan="2"></td><td>1 to 2 years (in maximum) in accordance with the degree of failure of fulfilling his/her duty of due care of prudent manager</td></tr>
</table>

A strict warning is issued under any of the following conditions without restricting application or eligibility for participation.

*1: In case of this, the influence over the society is minor, the malignancy of the act is minor, and the amount of unjustifiable use is small.

*2: In case of this, the influence over the society, as well as the malignancy of the act, is minor.

*3: In principle, the application restriction period will be calculated from the fiscal year following the fiscal year when the unauthorized use is recognized and the research funds are refunded. Also, ineligible in the fiscal year in which inappropriate usage of research funds are identified.

(ⅲ) About Public Announcement of a Case of Inappropriate Usage

Among those who are involved in an inappropriate usage of the program's research funds or those who failed to fulfil their duty of due care of prudent manager, regarding those researchers whose eligibility of application to or participation in this program is restricted, information of the outline of their misconduct (name of researcher, name of program, name of affiliated institution, fiscal year of research, details of misconduct, details of measures taken) will be disclosed in principle by JST. At the same time, information of outline of their misconduct (name of program, name of affiliated institution, fiscal year of research, details of misconduct, details of measures taken) will be also disclosed in principle by MEXT.

Furthermore, according to the "Guidelines for the Management and Audit of Public Research Funds in R&D institutions (Practice Standards)," once misconduct is determined as the outcome of an investigation of an institute, it will be the responsibility of the R&D institution to announce the results of the investigation; hence, we request that each institution deal with the matter appropriately, following the "Guidelines."

https://www.mext.go.jp/a_menu/kansa/houkoku/1364929.htm

6.5 Measures taken for Researchers whose Application and Participation Eligibilities are Restricted in Another Competitive Research Fund System

Researchers on whom restriction is imposed for the reason of inappropriate usage of research expenses in another competitive research fund system* including those managed by other ministries are not eligible to apply to or participate in this program while their qualifications are restricted for application in the competitive research fund system.

"Other competitive fund systems" include those systems that newly start a call for proposals in FY2022 and those that finished in FY2021 and before.

* Refer to "R&D proposal funding system" (https://www8.cao.go.jp/cstp/compefund/)

6.6 Majors taken to the Violation of Related Guidelines

Violation of related laws or guidelines, etc., in conducting research may result in penalties and sanctions being applied to persons and organizations that committed the violation, and the suspension or cancellation of research funding.

6.7 Carryover of Research Expenses

Making a carryover of research expenses until the end of next fiscal year for a maximum, may be permitted if the delay of the progress in the project occurs, and it is difficult to conclude within the fiscal year due to unavoidable circumstances such as difficulties to determine in advance the research or study method of the experimental research, restrictions associated with planning and designing, weather-related conditions, limited availability of materials, and others.

6.8 Cross-ministerial Expenses Handing Partitioned Table

The expense items of research costs specific to this program are determined on the basis of “Cross-ministerial Expenses Handing Partitioned Table.” As for research expenditure, refer to the “Cross-ministerial Expenses Handing Partitioned Table” on the website

Cross-ministerial Expenses Handing Partitioned Table（JST RISTEX R&D Programs）
https://www.jst.go.jp/contract/download/2022/2022_ristex_betten9.pdf

Currently, in response to the “6th Science, Technology and Innovation Basic Plan,” the “Integrated Innovation Strategy 2021” and the “Comprehensive Package for Strengthening Research Capabilities and Supporting Young Researchers,” the system for competitive research funding is being improved. Based on this, this program makes it possible to spend personnel expenses of the research representative of the project (hereinafter referred to as “PI”), expenses related to agency work other than research (buyout expenses) from direct expenses. When spending PI personnel expenses and expenses (buyout expenses) related to agency work other than research, please refer to the following necessary requirements and paperwork procedure.

○ “Review to Enable Payment of Expenses for Others to Execute Non-research Operations from Direct Costs (Buyout System Introduction) and Payment of the Personnel Expenses of the Principal Investigator (PI) from Direct Costs (Contact)” (September 17, 2020)
https://www.jst.go.jp/osirase/2020/pdf/20200917.pdf

Please refer to the following URL for the policy on the scope of eligibility, expenditure ceiling, etc. for the RISTEX R&D Programs

https://www.jst.go.jp/ristex/funding/funding_outline/for_researcher.html

6.9 Exchange of Direct Costs between Expense Items

Direct costs of different expense items can be exchanged under certain condition. Exchanges are allowed without approval from JST when the amount of direct costs to be exchanged does not exceed 50% of the total direct costs (5 million JPY if the 50% of total direct costs is less than 5 million JPY).

6.10 Securing Research Period until the End of Fiscal Year

In order to enable researchers to continue their research work until the end of a fiscal year, statements below should be followed in every JST competitive research funds.

(1) JST makes inspections on the completion of the project and the achievements of the research.
(2) Submit the accounting report by May 31.
(3) Submit the report on the research achievements by May 31.

Each research institute should make efforts to organize necessary systems at the institute based on the fact that the purpose of those practices is to secure the research period that continues by the end of a fiscal year.

6.11 Storage of Receipts and Report of Actual Usage of Overhead Costs (Indirect Costs)

Institutions who received overhead costs are required to manage the costs appropriately and store the receipts as evidence for the appropriate use of overhead costs for five years counted from the fiscal year following the fiscal year when project ended.

Institutions which received overhead costs are required to report each fiscal year the actual use of overhead costs via e-Rad before June 30 of the next fiscal year. (If a research institute has acquired two or more competitive research funds, report all indirect costs accompanied by such competitive research funds.)

The user’s manual for e-Rad is provided on the website.

(https://www.e-rad.go.jp/manual/for_organ.html).

FAQs are also provided on the website (https://qa.e-rad.go.jp/).

6.12 Promotion on Effective Use of Research Facilities and Equipment

According to “Reform on Competitive Research Funds for Sustainable Creation of Research Achievements (Midterm Summary)” (Examination Meeting on the Reform of Competitive Funds, June 24, 2015), it is considered appropriate that facilities/equipment which are comparatively large in scale and have high general applicability should in principle be shared, under the assumption that the original research objectives are sufficiently accomplished.

In addition, the “Comprehensive Package for Enhancing Research Capability and Supporting Young Researchers” (January 23, 2020, Council for Science, Technology and Innovation) and the “6th Science, Technology and Innovation Basic Plan” (approved by the Cabinet on March 26, 2021) call for promoting the maintenance and sharing of research equipment and facilities, establishing a institutional system for introducing, updating and utilizing research equipment (core facility), and formulating and publishing a sharing policy.

Based on the above, for research facilities/equipment which are purchased by this program, and particularly for large scale, general purpose items, positive efforts for sharing should be made, including sharing which does not hinder the progress of the project, use of research facilities and equipment purchased with other research funds, and purchase and sharing by combining multiple research funds, within the scope of the management conditions of other research funds and in accordance with the equipment sharing system in the affiliated institution or organization. Please note that it is necessary to strike a balance between management as shared equipment/facilities and accomplishment of the research purpose of the project.

Moreover, participants are asked to promote the sharing of research facilities and equipment beyond the framework of individual research organizations and institutes by positively cooperating with the “Inter-University Network for Common Utilization of Research Equipment,” which was implemented for the purpose of the mutual use of facilities in the National Institutes of Natural Sciences, and the sharing system constructed thanks to the “New Shared System Introduction Support Program” and the “Core Facility Construction Support Program” in each university.

○ “Reform on the Competitive Research Funds for Sustainable Creation of Research Achievements (Midterm Summary)” (Examination Meeting on the Reform of Competitive Funds, June 24, 2015), in Japanese.

https://www.mext.go.jp/b_menu/shingi/chousa/shinkou/039/gaiyou/1359306.htm

○ “6th Science, Technology and Innovation Basic Plan” (approved by the Cabinet on March 26, 2021) in Japanese.

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

○ Unification of usage rule of competitive research funds (March 5, 2021), in Japanese.

https://www8.cao.go.jp/cstp/compefund/toitsu_rule_r30305.pdf

○ “The Purchase of Shared Facilities Using Multiple Research Fund Systems (Use of Combined Total)” (September 10, 2020, Agreement between the institutions allocating funds and the relevant supervising government bodies)

https://www.mext.go.jp/content/20200910-mxt_sinkou02-100001873.pdf

○ Inter-University Network for Common Utilization of Research Equipment, in Japanese.

https://chem-eqnet.ims.ac.jp/

○ New Shared System Introduction Support Program, Core Facility Construction Support Program, in Japanese

https://www.jst.go.jp/shincho/program/pdf/sinkyoyo_brochure2020.pdf

6.13 Improving the Treatment of (latter-stage) Doctoral Students

The “6th Science, Technology and Innovation Basic Plan” (approved by the Cabinet on March 26, 2021) set a numerical target to triple the number of doctoral students who receive the amount equivalent to living expenses (equivalent to about 30% of students enrolled in the doctoral program receiving the amount equivalent to living expenses), improving financial support for graduate students, especially doctoral students (second semester), in order to attract excellent students and working people from inside and outside of Japan. In addition, the Basic Plan states that in order to promote the payment of salaries to doctoral students (second semester) at an appropriate level for research assistants (RA) from competitive research funds and joint research funds, the government will formulate rules for the payment of RA expenses relating to employment and remuneration for RAs at each business and university, and implement them sequentially from FY2021, urging the expansion of the employment of doctoral students as RAs and their improved treatments at universities and research and development agencies.

Moreover, in relation to doctoral students (second semester), the “Guidelines for the Employment

and Training of Postdoctoral Researchers" (December 3, 2020, Committee on Human Resources, Council for Science and Technology) note that "while they are students, they also possess aspects of researchers, and it is a key obligation of universities that train researchers to guarantee their treatment and maintain an environment in which they can carry out research activities;" "it is particularly important to treat them based on appropriate evaluations of their contributions, including paying them according to the hours they have worked under appropriate work management by determining compensation commensurate with the nature and content of their duties;" and "in your application for competitive research funds, there is a need to include the expenses required as direct costs if you are employing an RA in a university, and you should review the university's rules to ensure that you can pay your RA(s) an appropriate level of compensation."

Based on the above, in this program, please actively employ doctoral students who are necessary for the execution of your research as RAs, etc., and pay them according to the hours they have worked under appropriate work management by setting a unit price commensurate with the nature and content of their duties, while aiming for the salary level to be equivalent to the cost of living. In addition, when applying for this program, please apply with a financial plan that also takes into account the costs of the above-mentioned doctoral students.

- Under the 6th Science, Technology, and Innovation Basic Plan, the amount equivalent to living expenses of doctoral students is set as a minimum of 1.8 million yen per year. In addition, in order for excellent doctoral students to focus on their research without financial concerns, it also states a significant expansion of the number of beneficiaries receiving about 2.4 million yen per year that is equivalent to the stipend paid through the JSPS Research Fellowship for Young Researchers (Doctoral Course Students (DC)) program.
- With regard to the treatment of doctoral students who have been hired to carry out a research project, the "Guidelines for the Employment and Training of Postdoctoral Researchers" state that "the standard pay for a specially-appointed assistant professor employed with competitive research fund is considered to be around 2,000 yen to 2,500 yen per hour[2], taking

[2] The standard pay for a specially-appointed assistant professor employed with competitive research funds is considered to be around 2,000 yen to 2,500 yen per hour, taking average amounts of pay into account. (Calculated based on the median monthly salary (between 400,000 and 450,000 Yen) of specially-appointed assistant professors according to the Survey on Instructor Employment at Research Universities (Preliminary Report) published August 2020 divided by the number of working hours per day (between 7 hours 45 minutes and 8 hours) for actual days worked (between 19 and 20 days), excepting weekends and holidays, and multiplying by 0.8 in light of their status as doctoral students.)

average amounts of pay into account."

- The specific amount and period of payment will be determined by the research institution. There is no restriction on the amount of payment above or below the level mentioned above.
- When employing students as RAs, etc., please pay attention so that they do not work excessive hours, and consider the balance between work time and the doctoral students' own research and study time.

6.14 Securing an Independent and Stable Research Environment for Young Researchers

In the "2019 Research Improvement Reform" (Ministry of Education, Culture, Sports, Science and Technology (MEXT), April 23, 2019) and the "Development of Science, Technology and Innovation Policy for Knowledge-Intensive Value Creation: Becoming a World-Leading Country through the achievement of Society 5.0 — Final Summary" (Special Committee on General Policy of the Council for Science and Technology, March 26, 2020), the importance of ensuring employment periods of five years or more has been pointed out concerning fixed-term positions such as specially appointed faculty members and postdoctoral fellows, as short-term appointments can be a hindrance to career development.

Concerning National University Corporations and Inter-University Research Institute Corporations, "Guidelines for Personnel Salary Management Reform for National University Corporations, etc.: Toward the Establishment of Attractive Personnel Salary Management that Contributes to the Improvement of Educational and Research Capabilities" (Ministry of Education, Culture, Sports, Science and Technology (MEXT), February 25, 2019) states that "to achieve the two goals of fostering young faculty members and stabilizing employment, a system should be implemented which incorporates the perspective of developing researchers while maintaining flexibility, such as securing employment terms of a certain length — 5 to 10 years — by using expenses with a high degree of freedom of use, such as indirect expenses and endowments, even if the researchers have a fixed term of employment."

Based on these considerations, when hiring young researchers such as specially appointed faculty members and postdoctoral fellows for this program, applicants are advised to check with the staff in charge of the human resources and accounting of your department in ensuring that the length of the researchers' employment term is the same as that of their research periods. It is also advised to secure the particular size of their employment terms (approximately five years or more) by utilizing

indirect expenses of other external funding awards, essential expenses, and endowment as far as possible.

6.15 Self-motivated Research Activities by Young Researchers Employed to Carry Out Projects

With regard to young researchers employed in this program, based on the “Implementation Guidelines for Self-motivated Research Activities by Young Researchers Employed with Competitive Research Funds” (Revised on December 18, 2020, Agreement of the Liaison Meeting of Related Government bodies on Competitive Research Funds), if the Principal Investigator, etc. judges that it will not hinder the progress of a project but help it, and permission is obtained from the research institution with which they are affiliated, researchers may use some of their efforts working on this program for self-motivated research activities and/or activities that will improve their research and management capabilities, while using program funds for personnel expenses. Please see the following for more information.

- “Self-motivated Research Activities by Young Researchers Employed to Carry Out Projects (contact)” (April 10, 2020)
  https://www.jst.go.jp/osirase/2020/pdf/20200414.pdf

Please refer to the following URL for the policy on the scope of eligibility, etc. for the RISTEX R&D Programs

https://www.jst.go.jp/ristex/funding/files/senjukanwa_houshin.pdf

6.16 Support for Diverse Career Paths for Young Researchers with Doctoral Qualifications

The “Basic Policy of the Ministry of Education, Culture, Sports, Science and Technology for Supporting Diverse Career Paths for Young Researchers with Doctoral Qualifications Employed with Public Research Funds” (December 20, 2011, Council for Science and Technology, Committee on Human Resources) calls for “active efforts to support public R&D institutions and Principal Investigators that employ young researchers with doctoral qualification with public research funds, with the aim of securing diverse career paths in Japan and other countries for young researchers with doctoral qualifications.” Also, the “6th Science, Technology and Innovation Basic Plan” (approved by the Cabinet on March 26, 2021) also sets targets regarding the “expansion of career

paths and mobility to industry." Furthermore, the "Guideline for the Employment and Training of Postdoctoral" (December 3, 2020, the Committee on Human Resources, Council for Science and Technology Policy) states that "it is essential that doctorate human resources with high level specialization and advanced research skills should help drive innovation by contributing in a wide range of positions, including at venture companies and global corporations, and accordingly, initiatives are needed for the diversification of career paths after the completion of the postdoctoral period." Based on this, when a project is selected in this call for R&D applications and young researchers such as specially appointed researchers and postdoctoral researchers are to be employed with public research funds (competitive research funds or other project research funds, or public invitation-type education research funds for universities), the institution concerned should make active efforts to support those researchers in securing diverse career paths. Institutions should also consider using indirect funds in these efforts.

6.17 Securing management personnel of URA, etc.

In the "6th Science, Technology, and Innovation Basic Plan" (approved by the Cabinet on March 26, 2021), the importance of efforts to ensure professional quality and improve treatment has been pointed out for making URA and other management personnel to be attractive positions. In addition, the need of establishing career paths for management personnel, URA and engineers, etc., is indicated in the "Comprehensive Package to Strengthen Research Capacity and Support Young Researchers" (Council for Science, Technology, and Innovation on January 23, 2020).

Based on the above, when management personnel employed by the research institution, or newly hired URA, etc., is engaged in the management of this research program, the research institutes should secure a term of office for a certain period (about 5 years or more) as much as possible by utilizing indirect expenses, basic expenses, donations, etc., of other external funds, not limited to this program.

At the same time, as support for securing career paths of the management personnel, please take positive efforts for providing opportunities to participate in URA training, etc. Please consider utilizing indirect costs for such efforts.

6.18 Security Export Control (Measures against Leakage of Technology Internationally)

Many advanced technologies are studied at research institutions. Particularly at universities, there

is a heightened risk of leakage of advanced technologies and research-related materials/equipment or misuse in development/manufacture of weapons of mass destruction owing to the increased number of international students and foreign researchers due to internationalization. For this reason, an organizational response by the research institution is required when a research institution conducts research activities, including the relevant contract research, so that research results with potential military applications are not passed to groups or individuals considering activities of concern, such as terrorist groups and developers of weapons of mass destruction.

In Japan, for the purpose of maintaining international peace and security, export controls (* 1) are imposed based on the Foreign Exchange and Foreign Trade Act (Act No. 228 of 1949; hereinafter, “Foreign Exchange Act”). Accordingly, when attempting to export (provide) goods or technologies controlled under the Foreign Exchange Act, in principle, a license from the Minister of Economy, Trade and Industry (METI) is necessary. All those participating in this program must comply with the Foreign Exchange Act and all other laws, ordinances, guidelines, notifications, etc. of the national government. In addition to legal action and penalties, distribution of research funds may be stopped and the decision to allocate research funds may be cancelled if research is conducted in violation of the relevant laws, ordinances, guidelines, etc.

* 1 Currently, based on international agreements, etc., Japan’s security export control mainly consists of two systems below;
(1) a system (list regulation) that requires a permission from the Minister of Economy, Trade and Industry in case of attempting to export (provision) of cargo (technology) with specifications and functions above a certain level among the items listed in the Appended Table 1 of the Export Control Order and Foreign Exchange Order,
(2) a system (catch-all regulation) that requires a permission from the Minister of Economy, Trade and Industry in case of attempting to export (provision) of cargo (technology) that do not fall under the listed regulations and there is a risk of military diversion (use requirement and consumer requirement, or inform requirement).

Not only the export of cargo but also the provision of technology is subject to the regulation of the Foreign Exchange Law. When providing list regulation technology to non-residents (including residents who fall under a specific type (* 2) after May 1, 2022), or when providing it in a foreign

country, permission is required prior to the provision. Provision of technology includes not only providing technical information, such as design drawings, specifications, manuals, samples and prototypes in storage media, such as paper, e-mail, CD, DVD, or USB memory, but also providing work knowledge through technical guidance, training or technical assistance in seminars. Acceptance of foreign students from abroad and activities such as joint research may include many exchanges of technologies that may be subject to the regulations of the Foreign Exchange Law. Please note that the technology acquired through this program may also be subject to regulation when it is intended to be exported (provided).

* 2 Refers to the types of residents who are strongly influenced by non-residents, which are specified in 1.(3)サ①～③ of “transactions or acts providing technology that requires permission based on the regulations of Foreign Exchange and Foreign Trade Law, Article 25, Paragraph 1, and the Foreign Exchange Order, Article 17, Paragraph 2.”

In addition, based on the Foreign Exchange Law, it is necessary to establish a security trade management system when exporting list-regulated cargo or providing list-regulated technology to foreign countries (* 3). Therefore, by the time the contract is concluded, it will be confirmed whether or not the project plans to export cargo and technology that are subject to the export restrictions of the Foreign Exchange Law, and if there is an intention to export, it will be confirmed whether or not there is a management system. If you are willing to export and do not have a management system, we request that you establish a system by the time of export or the end of the project, whichever comes first. The confirmation status may be reported to the Ministry of Economy, Trade and Industry at the request of the Ministry of Economy, Trade and Industry. In addition, if it is found that the technology acquired through this program violates the regulations related to the Foreign Exchange Law, the contract may be canceled in whole or in part.

* 3 Exporters, etc. are obliged to comply with the “Exporter Compliance Standards” stipulated in Article 55-10, Paragraph 1 of the Foreign Exchange Law. In addition, the security trade management system here is based on the management system in the “Exporter Compliance Standards,” and refers to the internal control system of an organization to prevent illegal exports by appropriately exporting list-regulated cargo or providing list-regulated technology to foreign countries.

Details of security trade management are available on the websites of the Ministry of Economy, Trade and Industry, etc. See below for details.

- Ministry of Economy, Trade and Industry: Security Trade Management (general)
  https://www.meti.go.jp/policy/anpo/
- Ministry of Economy, Trade and Industry: Deemed export control (related to * 2 above)
  https://www.meti.go.jp/policy/anpo/anpo07.html
- Ministry of Economy, Trade and Industry: Guidance on sensitive technology management related to security trade (for universities and research institutes)
  https://www.meti.go.jp/policy/anpo/law_document/tutatu/t07sonota/t07sonota_jishukanri03.pdf
- Ministry of Economy, Trade and Industry: Model Security Trade Management Regulations Manual for Universities and Research Institutes
  https://www.meti.go.jp/policy/anpo/daigaku/manual.pdf
- Center for Information on Security Trade Control
  https://www.cistec.or.jp/export/jisyukanri/modelcp/modelcp.html
- Ministry of Economy, Trade and Industry: Security Trade Guidance (Introduction)
  https://www.meti.go.jp/policy/anpo/guidance.html

6.19 Strict Adherence to United Nations Security Council Resolution No. 2321

In response to the nuclear test and repeated launching of ballistic missiles by North Korea in September 2016, The United Nations Security Council (hereinafter referred to as “Security Council”), adopted Security Council Resolution No. 2321 on November 30, 2016, that substantially increased and strengthened sanctions against North Korea. Accordingly, the Ministry of Education, Culture, Sports, Science and Technology (MEXT) issued the Request for Strict Adherence to United Nations Security Council Resolution No. 2321 (2016 MEXT document No. 98) on February 17, 2017.

“Scientific and technical cooperation” in the section 11 in the main text of the Resolution is not limited to technologies regulated under the Foreign Exchange and Foreign Trade Act, but includes all cooperation with the exception of medical exchange. Accordingly, it is important to remember that the research institution must adhere to this Resolution in all research activities, including the relevant commissioned research.

See the following link for more information on Security Council Resolution No. 2321.

○ Ministry of Foreign Affairs of Japan: United Nations Security Council Resolution No. 2321, Japanese translation (Ministry of Foreign Affairs Notice No. 463 (issued on December 9, 2016))
https://www.mofa.go.jp/mofaj/files/000211409.pdf

6.20 Dialogue and Collaboration with Public Stakeholders

"Promotion of Science and Technology Dialogue with the People (Basic Initiative Policy)" (decided by the Minister of State for Science and Technology Policy and a member of the Diet on June 19, 2010) states that, in order to constantly achieve the excellent results of science and technology and create and further develop Japan's science and technology, it is essential to return the results of science and technology to the people, gain the understanding and support of the people, and promote science and technology together. If your project is selected for this open call, we request that you actively engage in "scientific and technical dialogue with the people" such as public lectures on research results, symposiums, continuous distribution of research results on the Internet, and round table conferences that involve various stakeholders.

○ Promotion of "Science and Technology Dialogue with the People" (Basic Initiative Policy)
https://www8.cao.go.jp/cstp/stsonota/taiwa/taiwa_honbun.pdf

In addition, the "6th Science, Technology, and Innovation Basic Plan" (approved by the Cabinet on March 26, 2021) calls for the co-creation of knowledge and the enhancement of science and technology communications through the participation of diverse entities, including citizen participation. JST provides the following examples of "opportunities for interactive dialogue and collaboration among diverse entities."

○ Science Agora
https://www.jst.go.jp/sis/scienceagora/
○ Miraikan – The National Museum of Emerging Science and Innovation
https://www.miraikan.jst.go.jp/en/

6.21 Open Access and Research Data Management

In April 2017, JST announced the basic policy regarding the handling of research results for the promotion of open science. This policy stipulates the basic concept of making research results papers open access and storing, managing, and disclosing research data in the research activities of this program.

As a general rule, researchers participating in this program are requested to publish their research papers through institutional repositories and publications. In addition, based on the data policy of the research institution, researchers create a data management plan that describes the policy and plan regarding the storage / management, disclosure / non-disclosure of research data generated as a result of research activities, submit it to JST and carry out the research activities after storing, managing, and disclosing the research data based on this plan. This plan can be changed during the course of conducting research. Refer to the following for more details.

○ JST's basic policy regarding the handling of research results for the open science promotion
https://www.jst.go.jp/all/about/houshin.html#houshin04 (Japanese version only)

○ JST's basic policy operational guidelines regarding the handling of research results for the open science promotion
https://www.jst.go.jp/pr/intro/openscience/guideline_openscience.pdf (Japanese version only)

In addition, JST analyzes statistical data such as the number of data modules, data types, disclosure types, storage locations, etc. for the purpose of grasping the contents of the description, supporting researchers, and reflecting (revising) in the basic policy. JST assumes that the analyzed statistical data will be disclosed, but will not disclose individual personal data or data whose names are known.

* For life science data, please refer to "6.22 Data Disclosure from National Bioscience Database Center."

6.22 Data Disclosure from The National Bioscience Database Center

The National Bioscience Database Center (NBDC) (https://biosciencedbc.jp/) was established in the Japan Science and Technology Agency (JST, a National Research and Development Agency) in April 2011 to promote the integrated use of databases in the life sciences field created by various

R&D institutions and others. In “Progress and Future Direction of the Integration of Life Science Database Project” (January 17, 2013), the object projects that receive provision of data and databases are to be expanded, centering on the NBDC. Based on these points, program participants are asked to cooperate in disclosure by the NBDC of the following types of data and databases obtained from this program.

No	Type of Data	Place of Disclosure	URL
1.	Overview of databases constructed for disclosure	Integbio Database Catalog	https://integbio.jp/dbcatalog/?lang=en
2.	Copies of data in connection with results published in paper presentation, etc. or copies of databases constructed for disclosure	Life Science Database Archive	https://dbarchive.biosciencedbc.jp/index-e.html
3.	Of items in 2, data related to human beings	NDBC Human Database	https://humandbs.biosciencedbc.jp/en/

< Contact >

National Bioscience Database Center of Japan Science and Technology Agency

TEL: +81-3-5214-8491　　e-mail: nbdc-kikaku@jst.go.jp

6.23 Description of Systematic Numbers in the Acknowledgments of the Papers, etc.

When submitting the research results obtained in this program, please indicate that you have received the grant from this program. In the Acknowledgment of the paper, please include “JST RISTEX Grant Number 10 digit systematic number.” The systematic number of the project consists of JPMJRX + alphanumeric 4 digits. The systematic number will be announced at the time of adoption.

The following is an example of the Acknowledgment in the paper.

[English]　：This work was supported by JST RISTEX Grant Number JPMJRXxxxx.

[Japanese]　：本研究は、JST、RISTEX、JPMJRXxxxx の支援を受けたものです。

* If there are two or more programs related to the paper, please list the program names and

systematic numbers.

6.24 Research Support Service Partnership Certification System (A-PRAS)

"Development of Science and Technology Innovation Policy for Knowledge-Intensive Value Creation-Toward a World-Leading Country by Realizing Society 5.0-Final Summary" (March 26, 2020, Science and Technology Council Comprehensive Policy Special) In the committee) states that "Based on the fact that startups that have strong feelings and passion for research support and return of research results to society, which has been carried out by the government as a public business, are beginning to appear, it is necessary to form a new public-private partnership system."

Under such circumstances, the Ministry of Education, Culture, Sports, Science and Technology established the "Research Support Service Partnership Certification System (A-PRAS)" in FY2019. This system improves the research environment for researchers by accrediting research support services provided by private businesses that meet certain requirements as "research support service partnerships" by the Minister of Education, Culture, Sports, Science and Technology. With the aim of accelerating the promotion of science and technology and the creation of innovation in Japan, and supporting the development of various efforts related to research support services, nine services have been certified by FY2020.

Details of each certified service can be found on the following Ministry of Education, Culture, Sports, Science and Technology web page. Please use all means.

https://www.mext.go.jp/a_menu/kagaku/kihon/1422215_00001.htm

○ "Development of Science and Technology Innovation Policy for Knowledge-Intensive Value Creation-Toward a World-Leading Country by Realizing Society 5.0-Final Summary" (March 26, 2nd year of Reiwa Science and Technology Council Comprehensive Policy Special Committee)
https://www.mext.go.jp/b_menu/shingi/gijyutu/gijyutu22/houkoku/1422095_00001.htm

6.25 Reformation of Competitive Research Funds

At the present time, based on "The 6th Science, Technology and Innovation Basic Plan," "Integrated Innovation Strategy 2021," and "Comprehensive Package to Strengthen Research Capacity and Support Young Researchers," the government is holding discussions about improving systems related to competitive research funds so as to enable the more efficient and effective use

of research funds. If, within the period of this call for submissions, policies common to all competitive research fund programs are announced regarding the improvement of funding systems and the use of funds, you will be notified about these policies when they apply to submissions for this program and the use of program funds.

6.26 Consideration on “Guidelines for the Management and Audit of Public Research Funds in R&D Institutions (Practice Standards)”

(1) Implementation of Management and Audit Systems Based on the “Guidelines for the Management and Audit of Public Research Funds in R&D Institutions (Practice Standards)”

In applying to this funding program and conducting research activities, R&D institutions must stringently observe the “Guidelines for the Management and Audit of Public Research Funds in R&D Institutions (Practice Standards)” (decided by the Minister of Education, Culture, Sports, Science and Technology on February 15, 2007; revised on February 1, 2021) (*1).

There is a need for R&D institutions, having implemented a system for managing and auditing public research funds, to take responsibility for making every effort to properly disburse the contract research funds in line with the aforementioned guidelines. If the Ministry of Education, Culture, Sports, Science and Technology (MEXT) decides that the system of a R&D institution for managing and auditing is insufficient, based on an investigation according to the said guidelines, measures such as reduction of overhead costs of all the competitive funds distributed by the MEXT and the independent administrative agency under its jurisdiction could be taken on the said institution.

(*1) Please refer to the following URL for the details of the “Guidelines for the Management and Audit of Public Research Funds in R&D Institutions (Practice Standards).”
https://www.mext.go.jp/a_menu/kansa/houkoku/1343904_21.htm

(2) Submission of the “Self-evaluation Checklist for Implementation of Proper Systems” based on the “Guidelines for the Management and Audit of Public Research Funds in Research Institutions (Practice Standards)”

In concluding a contract for this project, the research organization must prepare for a management and auditing system for research expenses based on the said guidelines and submit a “Self-evaluation

Checklist for Implementation of Proper Systems" ("checklist," hereinafter), which is a report on the situation (research undertaking is not approved unless the checklist is submitted).

Accordingly, starting on April 1, 2022, you must review the content of the following website, download the FY2022 version of the checklist from the Cross-ministerial Research and Development Management System (e-Rad), fill it out, and submit it (upload it) via e-RAD to the Competitive Research Fund Coordination Office, Research Environment Division, Science and Technology Policy Bureau, Ministry of Education, Culture, Sports, Science and Technology (MEXT).

Please note that contracts for research institutions that have submitted the FY2021 version of the checklist will be approved irrespective of the above, but you must also submit the FY2022 version of the checklist by December 1, 2022.

On the other hand, institutions that are not receiving competitive funds from the MEXT or administrative agencies under its jurisdiction do not have to submit a checklist.

See the website of the MEXT below for details of the method for checklist submission.

https://www.mext.go.jp/a_menu/kansa/houkoku/1324571.htm

Note: A perfect environment for using e-Rad is necessary for checklist submission. Also be aware that registering a research institution with e-Rad normally takes about two weeks. See the URL below in addition to the URL given above for details of the procedures related to the use of e-Rad.

https://www.e-rad.go.jp/organ/index.html

Since the said guidelines encourage the "promotion of issuing and sharing information," please proactively publish and disseminate information regarding their misconduct prevention initiatives via their websites.

6.27 Consideration on "Guidelines for Responding to Misconduct in Research"

(1) Administrative System based on the "Guidelines for Responding to Misconduct in Research"

In applying to this funding program and conducting research activities, R&D institutions are required to adhere to the "Guidelines for Responding to Misconduct in Research" (decided by the Minister of Education, Culture, Sports, Science and Technology (MEXT) on August 26, 2014, hereinafter referred to as the "guidelines")※.

In the case that the Ministry of Education, Culture, Sports, Science and Technology finds defects in the approach of organizations as a result of a survey of the situation, based on the guidelines, the Ministry may take measures for the pertinent organization including reduction of indirect expenses of the whole competitive research funds distributed by the MEXT and independent administrative agencies under its jurisdiction.

※Refer to the following webpage for the guideline (in Japanese).

https://www.mext.go.jp/b_menu/houdou/26/08/1351568.htm

(2) Submission of the “Self-evaluation Checklist” Based on the “Guidelines for Responding to Misconduct in Research”

Each R&D institution needs to submit the checklist on the status of implementation in accordance with “Guidelines for Responding to Misconduct in Research” (hereinafter referred to as the “Research Misconduct Checklist”). (The R&D institution that fails to submit the checklist cannot conduct R&D activities).

Accordingly, starting on April 1, 2022, you must review the content of the following website, download the FY2022 version of the Research Misconduct Checklist from the Cross-ministerial Research and Development Management System (e-Rad), fill it out, and submit it (upload it) via e-RAD to the Research Integrity Promotion Office, Research Environment Division, Science and Technology Policy Bureau, Ministry of Education, Culture, Sports, Science and Technology (MEXT).

Please note that contracts for research institutions that have submitted the FY2021 version of the Research Misconduct Checklist will be approved irrespective of the above, but you must also submit the FY2022 version of the checklist by September 30, 2022.

Institutions that are not receiving competitive funds from the MEXT or administrative agencies under its jurisdiction do not have to submit a Research Misconduct Checklist.

See the website of the MEXT below for details of the method for Research Misconduct Checklist submission.

https://www.mext.go.jp/a_menu/jinzai/fusei/1420301_00001.htm

Note: A perfect environment for using e-Rad is necessary for checklist submission. Note that the registration of an R&D institution for e-Rad requires approximately two weeks. See the URL below in addition to the URL given above for details of the procedure related to the use of e-

Rad.

https://www.e-rad.go.jp/organ/index.html

(3) Measures Taken for Misconduct in Research Activities Based on the “Guidelines for Responding to Misconduct in Research”

Misconduct in research activities in this program is treated strictly as described below.

(ⅰ) Measures to Cancel the Contract

In the case that a specific misconduct (fabrication, falsification, and plagiarism) is found in the R&D project of this program, the Collaborative Research Agreement is cancelled or altered and a refund of all or part of the entrusted expenses is requested. Furthermore, there may be cases in which no agreement is concluded in the following years.

(ⅱ) Measures to Restrict Application and Participation Eligibility

Measures given in the table below, depending on the level of inappropriateness and responsibility of specific misconduct, to restrict application to and participation in this program are imposed upon researchers involved in certain misconduct in research papers or reports of this program and those whose involvement has not been established but who are found responsible to an extent for the violation of the duty of due care as a distinct manager of pertinent papers and reports.

Furthermore, in the case that such restriction measures are taken on qualification for application and participation, information is provided to pertinent sections of competitive research fund systems distributed by the Ministry of Education, Culture, Sport, Science and Technology and independent administrative agencies under its jurisdiction (referred to as “competitive research fund system related to the Ministry of Education, Culture, Sport, Science and Technology” hereinafter) and to pertinent sections of competitive research fund systems distributed by other ministries and their independent administrative agencies (referred to as “competitive research fund systems related to other ministries” hereinafter), which may similarly restrict qualification for application and participation in competitive research fund systems related to the Ministry of Education, Culture, Sport, Science and Technology and to other ministries.

<table>
<tr><th colspan="3">Classification of person ineligible to apply to competitive research funds, being involved in specific research misconduct</th><th>Degree of maliciousness in specific research misconduct</th><th>Ineligible period of application※</th></tr>
<tr><td rowspan="5">Person who was involved in a research misconduct</td><td colspan="2">1． Especially malicious person, who, from the beginning of research, had an intention to commit a specific research misconduct</td><td></td><td>10 years</td></tr>
<tr><td rowspan="3">2． The author of a research paper, which is a product of a research where a specific research misconduct was committed</td><td rowspan="2">The authors of the paper, who are responsible for the whole content of it. Namely, they are the supervisor and the representative author of the paper or others who are identified to be equivalently responsible for the paper.</td><td>The misconduct has a substantial impact on the development of relevant research fields and on the society, or the maliciousness of the deed is judged to be high.</td><td>5-7 years</td></tr>
<tr><td>The misconduct has a small impact on the development of relevant research fields and on the society, or the maliciousness of the deed is judged to be low.</td><td>3-5 years</td></tr>
<tr><td>The authors of the paper other than those described above.</td><td></td><td>2-3 years</td></tr>
<tr><td colspan="2">3． Persons who conducted a specific research misconduct other than those of 1 and 2.</td><td></td><td>2-3 years</td></tr>
<tr><td colspan="3" rowspan="2">Person who has not been involved in a specific research misconduct but is a responsible author of a paper relevant to a research where a specific research misconduct was committed, being the supervisor or representative author of the paper, or a person, who is identified to be equivalently responsible for the paper.</td><td>The misconduct has a substantial impact on the development of relevant research fields and on the society, or the maliciousness of the deed is judged to be high.</td><td>2-3 years</td></tr>
<tr><td>The misconduct has a small impact on the development of relevant research fields and on the society, or the maliciousness of the deed is judged to be low.</td><td>1-2 years</td></tr>
</table>

*In principle, the application restriction period will be calculated from the fiscal year following the fiscal year when the specific fraudulent activity is determined. Eligibility for participation is also restricted for the fiscal year in which a specific misconduct is determined as such.

（iii）Measures Taken to Researchers whose Qualification is Restricted for Application to and Participation in the Competitive Research Fund System and Base Expenses

Qualification is restricted for application to and participation in this program for researchers whose qualification is restricted for application to and participation to competitive research fund related to MEXT; management grants to national university corporations, inter-university research institute corporations and independent administrative agencies under MEXT; base expenses including private school subsidies; or competitive research fund systems related to other ministries during the period the restriction is in effect.

（iv）Public Announcement of Misconduct

In principle, JST makes a public announcement with regard to the outline of specific misconduct in research activities of this program (name of researcher, project name, affiliation, research year, contents of misconduct, and measures taken). The Ministry of Education, Culture, Sports, Science and Technology also makes a public announcement concerning the contents of the pertinent misconduct (name of misconduct, kind of misconduct, research field of misconduct, name of expense account of misconduct, outline of misconduct, measures taken by the R&D institution, measures taken by fund distributor, and so on).

The said guidelines state that an R&D institution shall announce the survey result immediately. Each organization is requested to handle the case accordingly.

https://www.mext.go.jp/a_menu/jinzai/fusei/1360483.htm

6.28 Duty to Complete Education on Research Ethics and Compliance

Researchers who participate in the R&D project of this program shall receive training on research ethics education for the prevention of misconduct in research activities as per the “Guidelines for Responding to Misconduct in Research” and on compliance education as per the “Guidelines for the Management and Audit of Public Research Funds in Research Institutions.”

During the process of concluding a Collaborative Research Agreement after the selection of a proposed R&D project, it is necessary for all researchers participating in the R&D project, including the Principal Investigator and Lead Joint Researchers, to receive training on research ethics education and compliance education and submit a document to confirm their understanding of the contents of the training.

6.29 Handling of Information on the e-Rad system

Information of individual projects that have been selected for adoption (name of funding program, name of R&D project, name of affiliated R&D institution, name of Principal Investigator, budget amount, implementation period and the summary of the R&D project overview etc.) shall be deemed to be “information that is scheduled to be made public” as prescribed under Article 5, Paragraph 1, Item (a) of the “Act on Access to Information Held by Independent Administrative Agencies” (Act No. 140 of 2001). The name of the researcher, name of the affiliated R&D institution, name of the R&D project, and the R&D project overview summary are scheduled to be made public.

6.30 Provision of information on the e-Rad system to the Cabinet Office

The “6th Science, Technology and Innovation Basic Plan” (approved by the Cabinet on March 26) states that EBPM for policy making based on objective evidence will be thoroughly implemented in science, technology and innovation administration. The information registered in the Cross-ministerial Research and Development Management System (e-Rad) is used for appropriate evaluation of research and development with national funds, effective and efficient comprehensive strategy, planning of resource allocation policy, etc.

For this purpose, it is required to enter all updates to information regarding research outputs and accounting of the selected project and any use of indirect expenses related to competitive funding awards in e-Rad every year.

The information necessary for macroscopic analysis, including information on research achievements and accounting performance, will be provided to the Cabinet Office.

6.31 Registration of Researcher Information to “Researchmap”

“Researchmap” (https://researchmap.jp/) is one of the largest researcher information databases in Japan, and registered achievement information can also be disclosed. In addition, researchmap works with e-Rad and faculty databases of many universities. The registered information can be used in other systems, so it also leads to efficiency by eliminating the repeated registration of same achievements in various application forms and databases.

The information in researchmap is utilized effectively for surveying national academic or S&T plans, as well as for statistical purposes. Researchers involved in this program are advised to register at researchmap.

6.32 Patent Applications by JST

In case a R&D institution does not acquire rights to an invention, JST may acquire those rights in some cases. Therefore, if a R&D institution does not foresee acquiring rights to an invention, the researcher should notify JST promptly, providing information concerning the said invention, etc. in any appropriate format. (The above “information concerning the said invention” means information necessary for JST to determine whether an application for intellectual property rights is possible or not, for example, a copy of the notification of invention used in the R&D institution.)

JST will conduct a study based on the received notice, and if JST judges, based on the results, that an application for the said invention, etc. is possible, a separate “Patent Rights Transfer Agreement” will be concluded between the R&D institution and JST.

Chapter 7. Submission via the Cross-ministerial R&D Management System (e-Rad)

7.1 Cross-ministerial R&D Management System (e-Rad)

The Cross-ministerial R&D Management System (e-Rad)* is a cross-ministerial system that provides a series of on-line processes to manage the publicly funded research programs under the jurisdiction of ministries and agencies (Acceptance of applications → Screening → Selection → Management of selected project → Registration of research results and accounting performance).

*“e-Rad” is an abbreviation of the R&D management system common to all ministries, with the acronym for Research and Development (R&D for science and technology) followed by the acronym Electric (Electron).

7.2 e-Rad usage notes

Applicants are requested to make an application using e-Rad (https://www.e-rad.go.jp/en/). Please be aware of the following points when submitting your application:

(1) Pre-registration of R&D institution and researcher information is required. Please refer to “7.5(1).”

(2) Proposers are required to register information on research integrity in e-Rad in advance. Please refer to “7.5(2)” for details.

(3) Please allow several days (or more) before the application deadline for inputting information into e-Rad: Input of information into e-Rad takes a minimum of around 60 minutes. Furthermore, on the day of the application deadline, there is a risk that the e-Rad system may be congested, and inputting may take a long time. Please allow sufficient time before the application deadline to commence inputting information into e-Rad.

(4) It is possible to “temporarily save” input information: It is possible to discontinue input of

and temporarily save application information part way through. For details, please refer to e-Rad operation manual (https://www.e-rad.go.jp/en/manual/for_researcher.html).

(5) “Retraction” on e-Rad system is possible: Up to the application deadline, it is possible for researchers to retract and re-edit their R&D proposals. However, do NOT “retract” R&D proposals on the day of the application deadline. On the day of the application deadline, there is a risk that the e-Rad system may be crowded and re-editing the proposal after retraction may take a very long time. For details, please refer to e-Rad operation manual (https://www.e-rad.go.jp/en/manual/for_researcher.html).

7.3 Application method using e-Rad

(1) Registration of information on R&D institution, researcher, and research integrity

The R&D institution must register its researcher information and be issued a log-in ID and password. For detail, please refer to “7.5 (1), (2).”

↓

(2) Obtain required application guideline and R&D proposal forms.

Please check the list of Calls for Proposals in the e-Rad portal site and download the application guidelines and the proposal format. Please ensure to choose the proposal format corresponding to the program as each proposal format is different.

↓

(3) Prepare a R&D proposal (Maximum file size: 5 MB)

↓

(4) Enter application information into the e-Rad system.

Enter the necessary information into the e-Rad system. It takes approximately 60 minutes.

↓

(5) Submit your R&D proposal. (Upload file to e-Rad for submission)

Please ensure to submit your proposal to the correct program.

7.4 Inquiries and Service Availability

(1) How to operate e-Rad

For how to operate e-Rad, visit the portal site (https://www.e-rad.go.jp/en/) or download the manual from the site. Be sure to agree to the terms of use before making an application.

※ Please check the recommended environment of e-Rad (https://www.e-rad.go.jp/operating_environment.html) in advance.

(2) Where to direct questions on how to use the e-Rad system

Questions about the program itself are answered by the person in charge of the program, as usual. Questions about e-Rad operation methods are answered by the e-Rad Help Desk. Before asking questions, be sure to read both the website outlining the Call for R&D Proposals and the e-Rad Portal site carefully.

JST will not answer any questions regarding the status of review or acceptance

Questions concerning the Call Programs, and procedures for preparation of application documents and submission, etc.	Research Institute of Science and Technology for Society (RISTEX), Japan Science and Technology Agency (JST) (For applications) e-mail：boshu-koritsu@jst.go.jp (For general inquiries) e-mail：boshu@jst.go.jp **For questions, please contact us by e-mail.**
Questions concerning The Cross-ministerial R&D Management System (e-Rad) Registration of institution or research, or how to operate e-Rad, etc.	e-Rad helpdesk Tel: 0570-057-060 (navi dial) Office hours: 9:00-18:00 ●Except on Saturdays, Sundays, holidays, and the year-end and the new year period.

- RISTEX “Call for R&D Proposals” website
  (https://www.jst.go.jp/ristex/proposal/proposal_2022.html)
- e-Rad portal website (https://www.e-rad.go.jp/en/)

(3) Availability of e-Rad

Basically, e-Rad operates 24 hours a day, 365 days a year, but may stop the service for system maintenance. This will be announced in advance on the portal site.

7.5 Notes

(1) Pre-registration of R&D institution and researcher information

R&D institutions have to be registered on e-Rad by the time of application. One R&D institution must assign a representative for e-Rad, download the R&D institution registration form from the e-Rad portal website, and apply for registration. However, if the Proposer belongs to an overseas R&D institution, the R&D institution will be registered at JST after adoption. Please proceed to the application screen with no affiliation registered for the researcher ID (Cross-ministerial R&D Management System (e-Rad)), click the “Basic Information” tab and enter the affiliated institution.

In that case, it is necessary for the Proposer him/herself to obtain the e-Rad login ID and password.

The acquisition procedure is as follows. Please register prior to two weeks or more. Please refer to the e-Rad portal website for details (https://www.e-rad.go.jp/en/).

1) Researchers belonging to domestic R&D institutions
- Worker: R&D institution clerk
- Registration Contents: R&D Institution and Researcher Information

2) Researchers who belong to a foreign R&D institution or researchers who do not belong to a R&D Institution
- Worker: Proposer yourself
- Registration Details: Researcher Information

(2) Points to note when uploading a proposal to the e-Rad system

・Please ensure to use the format provided for the Program in the fiscal year of the application. Applications using formats for other programs and/or for other fiscal years will not be accepted.

・The documents need to be converted to pdf before uploading to the e-Rad. It can be performed from the menu after logging into the e-Rad.

・Please make sure that the size of the proposal pdf submitted is no more than 5MB.

・Please delete all the track change records.

・Please do not set a password to the pdf file of the proposal.

・Please check that the file converted to pdf has the page numbers inserted

・Please make sure to check the converted pdf file as following errors could occur.

* The use of external characters or special characters may cause corrupted text in the page or file concerned (please refer to “e-Rad operation manual” (can be downloaded from the e-Rad Portal site) regarding the use of characters permitted to use).

For details, please refer to the Call for R&D Proposals in Japanese.

Chapter 8. Q&A on Call for R&D Proposals

■ Enrolling in the educational program for research integrity

Content of the Educational Program for Research Integrity

Q. What content must be included in the educational program for research integrity conducted by affiliated institutions?

A. Educational programs for research integrity are the responsibility of each research institution. JST does not specify the specific teaching material to be used in such programs.

(Reference)

According to the “Guidelines for Responding to Misconduct in Research Activities” (August 26, 2014, adopted by the Minister of Education, Culture, Sports, Science and Technology), research institutions are required to implement a structure for preventing misconduct—such as the installation of a “Research Integrity Education Manager”-and conduct education at the institutional level. Further, the allocating institution is also required to confirm researcher enrollment in the institution’s research integrity education program.

Note, however, that the details in the referenced guidelines focus on misconduct related to academic papers and does not cover bioethics and conflicts of interest, which are different topics. If you have any questions, please contact JST Office of Research Integrity.

Research Integrity Division, Department of Legal Affairs and Compliance,
Japan Science and Technology Agency
E-mail: rcr-kousyu@jst.go.jp

Program Completion Certification

Q. Is it necessary to submit documentation certifying completion of an educational program for research integrity?

A. No, submission is not necessary at proposal.

Deadline for Completing the Program

Q. I cannot complete the educational program for research integrity before the application deadline. Can I complete the program after the deadline?

A. Completion of the educational program for research integrity by Principal Investigator is a prerequisite for applying. Enrollment and completion of this program will not be permitted after the solicitation deadline. For details, please refer to “6.1 Enrolling in and Completing the Educational Program on Research Integrity.”

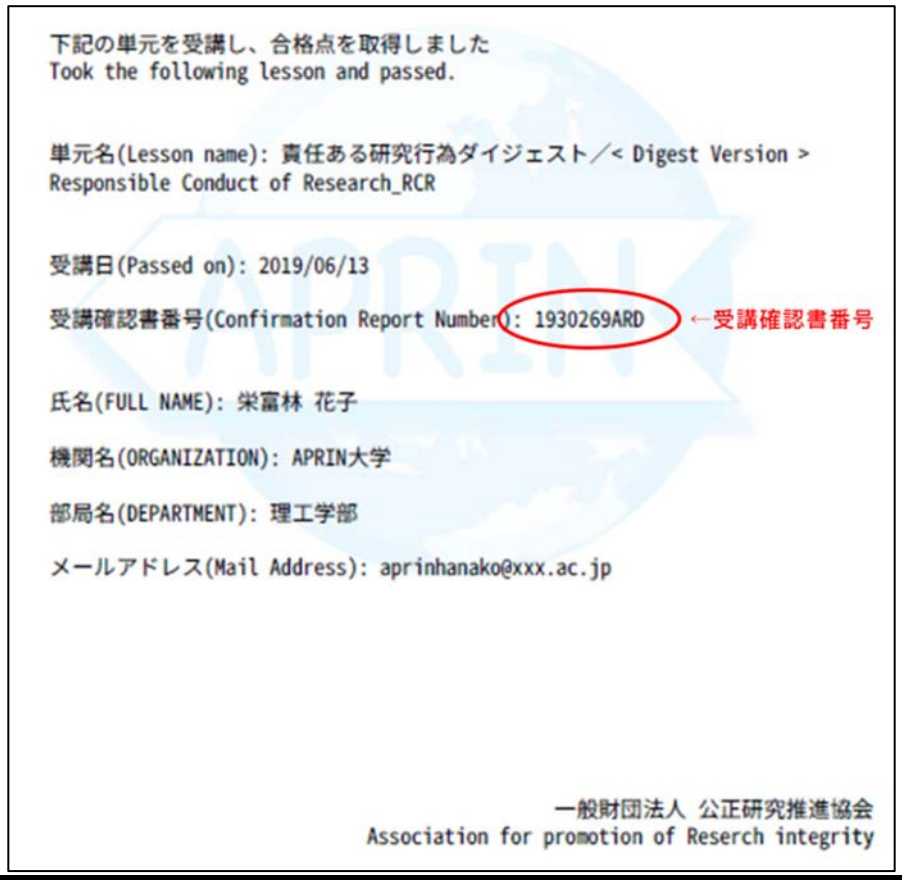
Confirmation Report and Declaration of Completion

Q. I have completed the digest version of eAPRIN (ex-CITI Japan), but where/how do I view the Confirmation Report Number?

A. After passing the quiz, Confirmation Report will be issued. The Confirmation Report Number (7 digits + ARD) is written on the Confirmation Report.

* eAPRIN is an e-learning program operated by the Association for the Promotion of Research Integrity (APRIN). The name was changed from CITI Japan to eAPRIN effective on October 1, 2018.

Sample of Confirmation Report


下記の単元を受講し、合格点を取得しました
Took the following lesson and passed.

単元名(Lesson name): 責任ある研究行為ダイジェスト／< Digest Version >
Responsible Conduct of Research_RCR

受講日(Passed on): 2019/06/13

受講確認書番号(Confirmation Report Number): 1930269ARD ←受講確認書番号

氏名(FULL NAME): 栄富林 花子

機関名(ORGANIZATION): APRIN大学

部局名(DEPARTMENT): 理工学部

メールアドレス(Mail Address): aprinhanako@xxx.ac.jp

一般財団法人 公正研究推進協会
Association for promotion of Reserch integrity

Q. I have completed the eAPRIN (formerly CITI) digest version in the past for this program (or another JST program) proposal. Do I need to take the course again?

A. You do not need to complete the program again. Please input your Confirmation Report Number issued when you completed the program on the Individual Items tab of e-Rad.

Availability of an English version of the eAPRIN (ex-CITI Japan) digest version

Q. Since I have not taken the program offered by my institution, I am planning to enroll in the digest version of eAPRIN (ex-CITI Japan). What options are there if my native language is not Japanese, which makes taking the course in Japanese difficult?

A. Please take the English digest version of eAPRIN (ex-CITI Japan).

Requirements for Proposers

Q. Is there an age limit?

A. There is no specific age limit, but it is necessary that Principal Investigator and Collaborator (Proposers) be able to create a structure that can perform the research at an organization or the like in Japan and carry out the R&D projects throughout the project period.

Multiple Applications

Q. I previously submitted a proposal for a different JST project. Can I also submit a proposal in this program?

A. Yes, you may submit another proposal. However, you may not submit multiple applications for the FY2022 call for the “Science of Science, Technology and Innovation Policy,” “Solution-Driven Co-creative R&D Program for SDGs (Scenario Creation Phase, Solution Creation Phase),” and the “Responsible Innovation with Conscience and Agility.” In addition, in cases where the Principal Investigator or Research Participants, etc. participate in multiple projects through any competitive research funding system operated by JST, adjustment may be made such as reducing the R&D budget according to the effort of the researchers or requiring researchers to select one project for implementation.

Institutional Approval at the Time of Application

Q. Do I need to obtain approval from my affiliated research institution when I apply?

A. You do not need approval from your institution for applications submitted through e-Rad, but please ensure that you obtain prior consent. After projects are selected, JST will enter into a Collaborative Research Agreement with the researchers’ affiliated research institutions. Please note that, if a Collaborative Research Agreement cannot be entered into, the R&D budget cannot be used, so please carefully read “5.9 Responsibilities of Research Institutions.” There is no need to submit an approval letter.

Implementation by Foreign Institutions

Q. What criteria will be used to determine whether the performance of research would be impractical if not done at a foreign institution?

A. Decision concerning whether research must be performed overseas are assumed as following.

① Required facilities do not exist in Japan and have been installed only in foreign institution.

② There is investigation and research that can be performed only by the research institution.

③ Research materials and data can be obtained only at a foreign research institution or foreign location and cannot be brought to Japan.

Collaboration with foreign institutions

Q. In R&D, is collaboration with foreign institutions actively encouraged?

A. Since the issues raised in this program are not limited to domestic issues, and similar issues exist overseas at present, and in the future, R&D proposals that target collaboration with overseas institutions will be encouraged, such as utilizing overseas knowledge, fields, and human resources. However, the social schemes developed to prevent social isolation and loneliness must be demonstrated in a specific region, school, workplace, community, or other sites in Japan.

Interview Screening

Q. If I am not available on the day of the interview screening, can I change the interview screening date?

A. Please be aware that because the schedule is determined by coordinating the schedules of numerous evaluators, the schedule cannot be re-adjusted.

Entering of R&D Budget

Q. Do the “R&D budget” written on the application include the amount of indirect costs paid to the institution when the Collaborative Research Agreement is concluded?

A. R&D budget refers to direct costs. They do not include indirect costs. Please enter only direct costs.

Direct Costs

Q. After the research and development commences, is it possible to change the detailed use of funds within the budget based on the progress and other factors (for example, using funds initially allocated to expenses for goods to travel expenses) (exchange of direct costs between expense items)?

A. The exchange of direct costs between expense items can be done under certain conditions.

・Conditions for shifting funds without requiring approval from JST:

If the amount of funds to be shifted from each expense items does not exceed 50% of the total direct costs in the relevant fiscal year (if 50% of the total direct costs does not exceed 5 million yen, then 5 million yen)

・Conditions for shifting funds after approval from JST (Program Supervisor) that it is necessary for research implementation

If the amount of funds to be shifted from each expense items exceeds 50% of the total direct costs in the relevant fiscal year and exceeds 5 million yen

Note that you are not allowed to exchange direct cost and overhead (indirect) cost.

Indirect Costs

Q. What types of expenditures can indirect costs be used for?

A. Indirect costs are funds for the research institution to allocate to the expenses required for improving the research environment of the implementers participating in a project selected for this program or for enhancing the overall functionality of the research institution. The “Common Guidance for the Execution of Indirect Expenses of the Competitive Fund” (agreed upon by the coordination committees of relevant ministries and agencies on April 20, 2001 and amended on October 1, 2021) gives the following examples as the main uses of indirect costs.

1) Expenses relating to management divisions

- Expenses for development, maintenance, and operation of management facilities and equipment
- Expenses necessary for management administration

Expenses for purchase of supplies and consumables, equipment lease expenses,

miscellaneous expenses, personnel expenses, communications and transportation expenses, honoraria, domestic and overseas travel expenses, conference expenses, printing expenses, etc.

2) Expenses relating to research divisions

- Expenses relating to goods used in common

  Expenses for purchase of supplies and consumables, equipment lease expenses, miscellaneous expenses, communications and transportation expenses, honoraria, domestic and overseas travel expenses, conference expenses, printing expenses, newspaper and periodical expenses, utility expenses

- Expenses necessary to promote research activities through applications of the relevant research etc.

  Personnel expenses for research and research support staff, Expenses for purchase of supplies and consumables, equipment lease expenses, miscellaneous expenses, communications and transportation expenses, honoraria, domestic and overseas travel expenses, conference expenses, printing expenses, newspaper and periodical expenses, utility expenses

- Patent related expenses
- Research building development, maintenance, and operation expenses
- Experimental animals facility development, maintenance, and operation expenses
- Researcher interaction facility development, maintenance, and operation expenses
- Facility development, maintenance, and operation expenses
- Network development, maintenance, and operation expenses
- Large-scale computing (including supercomputer) development, maintenance, and operation expenses
- Large-scale computing building development, maintenance, and operation expenses
- Library development, maintenance, and operation expenses
- Field development, maintenance, and operation expenses

Etc.

3) Expenses relating to other relevant operation divisions

- Expenses relating to dissemination of research results
- Expenses relating to publicity, etc.

Even in cases other than the above, indirect costs may be used in cases where the head of the research institution makes a determination that the expenses are necessary to improve the R&D environment of researchers who received competitive research funds or to enhance the overall functionality of the research institution. However, this does not include funds that are to be allocated to direct costs.

Research institutions that receive distributions of indirect costs shall properly manage indirect costs and appropriately retain receipts and the like evidencing the proper use of indirect costs for five years from the fiscal year after the fiscal year in which the project is concluded. Furthermore, research institutions that receive distributions of indirect costs shall report the results of annual indirect cost use to JST by June 30 of the following fiscal year via the Cross-ministerial R&D Management System (e-Rad). If the method of making reports via e-Rad is not clear, please refer to the e-Rad user manual (https://www.e-rad.go.jp/manual/for_organ.html) or the FAQs (https://qa.e-rad.go.jp/) .

Other grants

Q. It is required to write about grants received or being applied for “including those from overseas organizations” in form 8. What should I specifically write about research funds received or being applied for from overseas institutions?

A. When applying, the Proposer is required to provide a wide range of research funds received or being applied for. Please be sure to fill in all research funds accepted from foreign institutions, such as competitive research funding, subsidies from private foundations, contract research expenses from companies, and joint research expenses, etc.

Outsourcing

Q. Is it possible to subcontract software preparation and other such work to external companies, etc.?

A. If it is required as a matter of advancing the project, it is possible. However, there is a premise that such subcontracting of work to outside parties is based on “subcontracting agreements” that exclude R&D work. In principle, the subcontracting of R&D work is not permitted.

Personnel Transfers after Proposal Selection

Q. If a Principal Investigator experiences a change in position (promotion, transfer to a different research institution, etc.) while conducting research, will the Principal Investigator be permitted to continue research activities?

A. As long as it is possible to continue research activities unhindered by the change in position, research activities may be continued.

Subcontracting

Q. Do the Collaborative Research Agreements between JST and the R&D participants’ affiliated research institutions take the form of “subcontract” (see note) via the Principal Investigator’s research institution?

Note: “Subcontract” in the Collaborative Research Agreement means that JST concludes a research agreement only with a research institution with which the Principal Investigator is affiliated and the research institution with which the said Principal Investigator is affiliated concludes another research agreement with a research institution with which a Joint Researcher is affiliated.

A. In this program, Collaborative Research Agreements are not subcontracts. JST concludes Collaborative Research Agreement separately with each of research institutions with which the Principal Investigator and Lead Joint Researchers are affiliated.

Definition of Lead Joint Researcher and Group Leader

Q. What is the meaning of Lead Joint Researcher and Group Leader?

A. Lead Joint Researcher:

JST concludes Collaborative Research Agreement separately with each of research institutions with which Principal Investigator and Lead Joint Researchers, who will execute the budget, are affiliated, and allocates R&D funds for them. One “Lead Joint Researcher” will be designated to represent each institution with which the Collaborative Research Agreement is to be concluded. The person in charge of research at the institution other than the Principal Investigator is called the “Lead Joint Researcher.”

Group Leader:

A project can be composed of several research groups, depending on the R&D content and plan. The R&D participant who represents each group is called the “Group Leader.” (In the case of a group consisting of several research institutes, the “Lead Joint Researcher” and the “Group Leader” are not necessarily the same person.

Registration on e-Rad by Lead Joint Researcher/Group Leader

Q. Other than the Principal Investigator, is it necessary to register anyone on e-Rad?

A. Please register the Lead Joint Researcher/Group Leader for “Entries specific to the program.” Other R&D participants do not need to register.

Q. Some Lead Joint Researchers/Group Leaders do not have an e-Rad researcher number, but can they still register on e-Rad?

A. Only the Principal Investigator is required to have an e-Rad researcher number when applying. Lead Joint Researcher/Group Leaders and other participants do not need researcher numbers when applying. After project adoption, you will be asked to obtain e-Rad researcher numbers as required.

Securing a R&D Period (R&D implementation) Until the End of the Fiscal Year

Q. When does a research results report need to be submitted?

A. JST has made the following arrangements so that R&D participants can make the most use of R&D period to conduct research and development.

・The deadline for submitting the report on the research achievements, “Results Report” for the fiscal year is May 31 of the following fiscal year.

・The deadline for submitting the accounting report, “the Collaborative Research Results Report (and Income and Expenditure Settlement Report)” for the fiscal year is May 31 of the following fiscal year.

・However, if the end of the R&D period for the last fiscal year is not the end of March of the relevant fiscal year, please submit the report above by the date designated by JST within 61 days after the end of the contract period.

* Each research institution shall establish the necessary internal structures considering that the objective of the above arrangements is to secure a R&D period (R&D implementation) until the end of the fiscal year.

Adopted proposals and application status

Q. Please let us know the status of proposals and applications for other RISTEX fields and programs in the last fiscal year.

A. Please refer to the following website.

FY2021 Adoption Results Press Release

- Solution-Driven Co-creative R&D Program for SDGs (SOLVE for SDGs): Preventing Social Isolation & Loneliness and Creating Diversified Social Networks

  https://www.jst.go.jp/pr/info/info1535/index.html
- Responsible Innovation with Conscience and Agility
- Solution-Driven Co-creative R&D Program for SDGs (Scenario Creation Phase, Solution Creation Phase)
- Science of Science, Technology, and Innovation Policy R&D (R&D) Program

  https://www.jst.go.jp/pr/info/info1525/index.html

English version of the application guidelines

Q. Is it correct to assume that the content of the English version is the same as the Japanese version?

A. The English version of the application guidelines is a translation of the Japanese version. If there is any discrepancy between the English and Japanese versions, please refer to the Japanese version as the correct one.

Q. Could I prepare my proposal in English?

A. Only proposals written in Japanese will be accepted as a certain level of Japanese communication skills is required for this program: This program conducts academic research using knowledge from in HSS, such as understanding the causes and mechanisms of social isolation and loneliness and producing a new image of society, as well as visualization and evaluation methods (indicators, etc.) for the risk of social isolation and loneliness, and the development of preventive measures on the issues and their PoC. in collaboration with specific regions, schools, workplaces, and communities, etc. in Japan.

Chapter 9. Guide to Completing the Proposal

Please refer to the original Japanese version.

Chapter 10. References

(Related websites)

■United Nations Information Centre

2030 Agenda

https://www.unic.or.jp/activities/economic_social_development/sustainable_development/2030agenda/

■Japan Business Federation

https://www.keidanrensdgs.com/

■Sustainable Development Goals (SDGs) Promotion Headquarters

SDG Action Plan 2022

http://www.kantei.go.jp/jp/singi/sdgs/dai11/actionplan2022.pdf

■Ministry of Education, Culture, Sports, Science and Technology (MEXT)

https://www.mext.go.jp/b_menu/shingi/gijyutu/gijyutu2/092/houkoku/1410641.htm

https://www.mext.go.jp/a_menu/kagaku/kokusai/sdgs/1408737.htm

https://www.mext.go.jp/a_menu/kagaku/kokusai/sdgs/1408738.htm

■JST

Science, Technology and Innovation (STI) for implementing the SDGs

https://www.jst.go.jp/sdgs/actionplan/index.html

“STI for SDGs” Award

https://www.jst.go.jp/sis/co-creation/sdgs-award/

Solution-Driven Co-creative R&D Program for SDGs (SOLVE for SDGs): Preventing Social Isolation & Loneliness and Creating Diversified Social Networks FY2021 Open Online Seminar/Solicitation Briefing Session

(July 1, 2021)

https://www.jst.go.jp/ristex/info/event/20210701_01.html

Science Agora 2021 International Session: “The Future We Want to Create: Reconsidering the Roots of Social Anxiety”

(November 5, 2021)

https://www.jst.go.jp/sis/scienceagora/2021/session/05-a17.html

Open Workshop for FY2022 Call for Proposals for Solution-Driven Co-creative R&D Program for SDGs (SOLVE for SDGs): Preventing Social Isolation & Loneliness and Creating Diversified Social Networks “What is the Problem of Social Isolation and Loneliness? ～Let's change social isolation and loneliness to be solved, starting from the way society should be”

(March 29, 2022)

https://www.jst.go.jp/ristex/info/event/20220329_01.html

【Inquiries】

Questions concerning the call for R&D proposal are accepted by e-mail.

boshu-koritsu@jst.go.jp

The latest information will be posted on the following RISTEX Website.

https://www.jst.go.jp/ristex/proposal/proposal_2022.html

Research Institute of Science and Technology for Society (RISTEX)

Japan Science and Technology Agency (JST)

Address: Science Plaza, 5-3 Yonbancho, Chiyoda-ku, Tokyo 102-8666, Japan

【Questions concerning the Cross-ministerial R&D Management System (e-Rad)】

e-Rad helpdesk: 0570-057-060 (Navi Dial)

Office hours: 9:00～18:00

※Except on Saturdays, Sundays, holidays and the year-end and new-year period