JST Strategic Basic Research Programs (CREST, PRESTO, ACT-X)

Program Introduction and FY2021 CALL for Research Proposal

April 2021

Department of Strategic Basic Research
Japan Science and Technology Agency (JST)

Strategic Basic Research Programs

> Japan Government (Ministry of Education, Culture, Sports, Science and Technology "MEXT") prescribes Strategic Objectives based on national science and technology policies and social/economic needs.

Promote Network-Based Research at JST

- JST **promotes Strategic Basic Research Programs** and **create the seeds of innovative technologies** based on new scientific knowledge that gives rise to scientific and technical innovation leading to social and economic change.

- Under "Strategic Objectives", JST specifies Research Areas to pursue and **Research Supervisors (Program Officers)** to lead them. The Research Supervisors establish Research Areas as a most suitable researchers and research project beyond industry-academia-government frameworks **(Network-Based Research Institute)** and **manage research areas to accomplish Strategic Objectives**.

- Under the management of research supervisors, researchers carry out their research while building up networks with other researchers; the world of industry, which will receive the outcomes of the research; and participants from wider society.

For Innovation in Science and Technology

Standard model for Research Institute
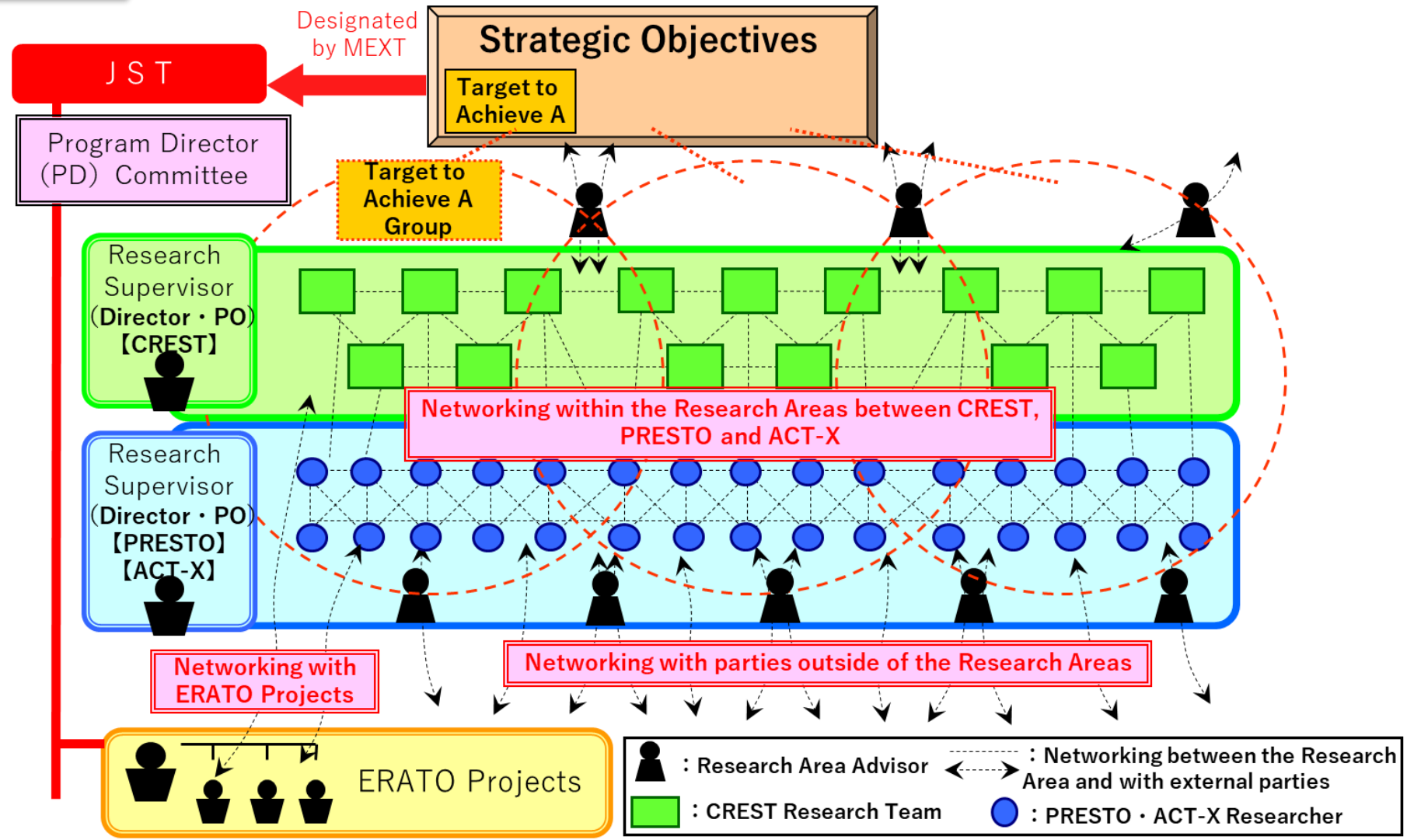
## Standard Model for CREST/PRESTO/ACT-X "Research Institute"

What is "CREST" ?

CREST

(Core Research for Evolutionary Science and Technology)

Network-based (team-based) research giving rise to outstanding results that lead to scientific and technological innovation.

Research Period	5.5 years or less
Research Cost (Direct Cost)	Total of 150-500 M¥/team

* Since the upper limit setting may be different depending on the research area, please check the application guidelines.

- Promote unique and internationally high-level basic research to achieve Strategic Objectives.
- Realize creative and outstanding new technology seeds based on new scientific knowledge that greatly contribute significantly to scientific and technological innovation.
- Multiple best teams led by top researchers in Japan promote research toward the achievement of Strategic Objectives while training young researchers to participate in the teams.
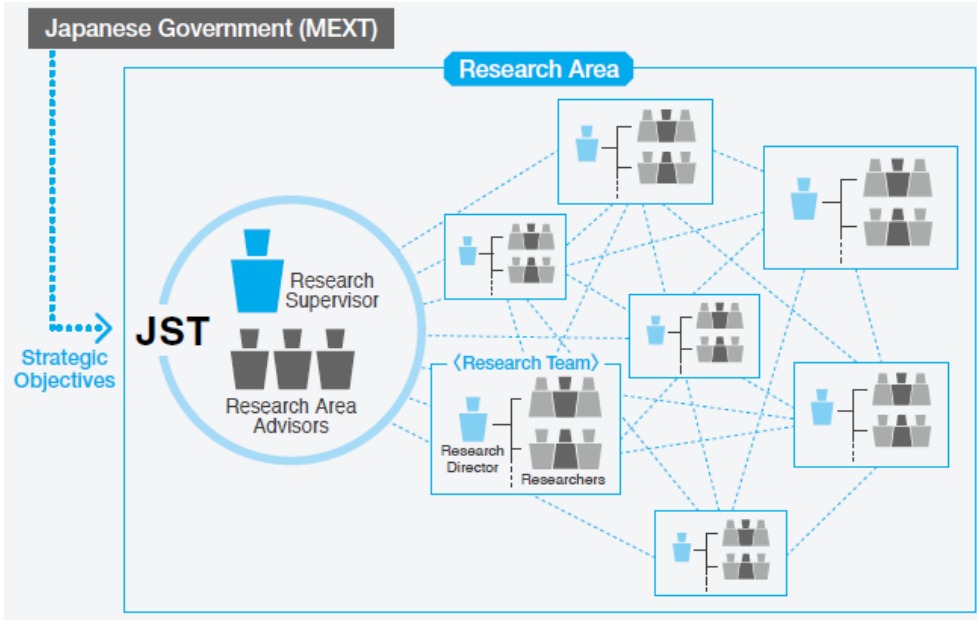
What is "PRESTO" ?

PRESTO

(Precursory Research for Embryonic Science and Technology)

Network-based (individual) research giving rise to wellsprings of scientific and technological innovation

Research Period Research Cost (Direct Cost)	3.5 years or less Total of 30-40 M¥

* Since the upper limit setting may be different depending on the research area, please check the application guidelines.

- Promote pioneering directed basic research that is original and challenging, and expected to lead to the development of high international standards to achieve Strategic Objectives

- Create new technology seeds based on new scientific knowledge toward the science and technology innovation in advance in the world.

- Building new networking with researchers in different fields, the young researchers conduct their challenging studies.
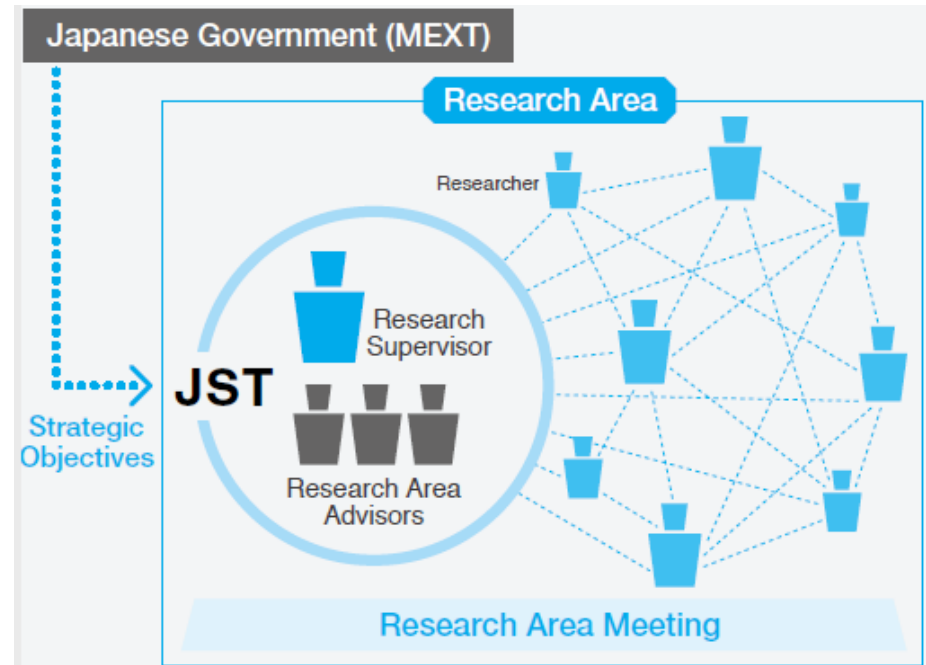
What is "PRESTO" ?

Large Research Expenses for Individual Researcher
- PRESTO researcher can use the large research expenses for PRESTO independent project based on own ideas..
- JST's research supervisor will visit PRESTO researchers' supervisor/professor to check their research conditions as well as request the independent study for PREST project.

Networking
- In "camp-style progress meetings" , PERSTO researcher has new networking opportunity to meet new researchers in different research fields. The researchers will be able to get new ideas for their study as well we get a possibility for new research collaboration.
- JST's research supervisors and research area advisors form academia and industries give various advices to PERSTO studies.

Career Advancement Opportunities
- 69 out of 144 PRESTO researchers who completed their research in 2016 were promoted during the research period.

Various Events
- PRESTO researchers can have various experiences that cannot be obtained only by university research activities e.g. JST's NEW Technology Presentation Meetings

What is "ACT-X" ?

[Background]

In order to further encourage young researchers to carry out independent and challenging research, we will enhance and strengthen funding for young researchers such as PRESTO. **Established a challenging research support system "ACT-X" in 2019 to support young researchers** (including graduate students) based on the "ACT-I" that was implemented in advance.

Research Area

Supervisor   Advisors

Individual Researchers

Open Call and Selection of individual researchers

Fine-tuned management

Research Area Meetings

[Program Summary]

➢ Support target

Young researchers less than 8 years after obtaining a doctoral degree

* If not obtained a doctoral degree, a young researcher less than 13 years after obtaining a bachelor's degree.
* Including those who are less than the above applicable years excluding the period of prenatal / postnatal leave / childcare leave acquired after obtaining a degree.

Regardless of the above, students can apply only for graduate students.

* Since the upper limit setting may be different depending on the research area, please check the application guidelines.

➢ Support scale

Total Standard Amount (direct expense) : 4.5―6 million yen / 2.5 year

* Total Standard Amount depends on Research Area, so please clarify it on each Research Area information.
* Additional support for highly evaluated issues as an acceleration phase (about 1 year).

➢ Features of the program

• The advisor in charge, who is the top researcher in the field, will give detailed advice and guidance to two or three researchers, and strategically develop them as a theme that will lead to pioneering.
• By holding research summaries and area meetings where advisors and participating researchers gather, it will lead to the formation of mutual networks among young researchers.
• Implement flexible program management such as introducing a small start.
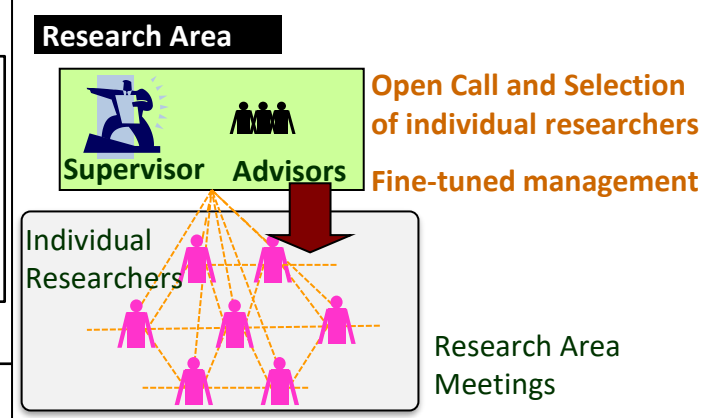
* From the perspective of human resource development, we accept applications (early graduation) for PRESTO during ACT-X.
* If a graduate student is selected, he / she can apply for his / her own RA expenses in addition to the usual research expenses (see application guidelines 4.2.7).

Number of Proposal/Selected

CREST (2020 Selected Rate 8.9%)

	Male	Female	Total
Proposal	688	53	741
Select	62	4	66

PRESTO (2020 Selected Rate 11.1%)

	Male	Female	Total
Proposal	1,360	142	1,502
Select	152	15	167

ACT-X (2020 Selected Rate 24.9%)
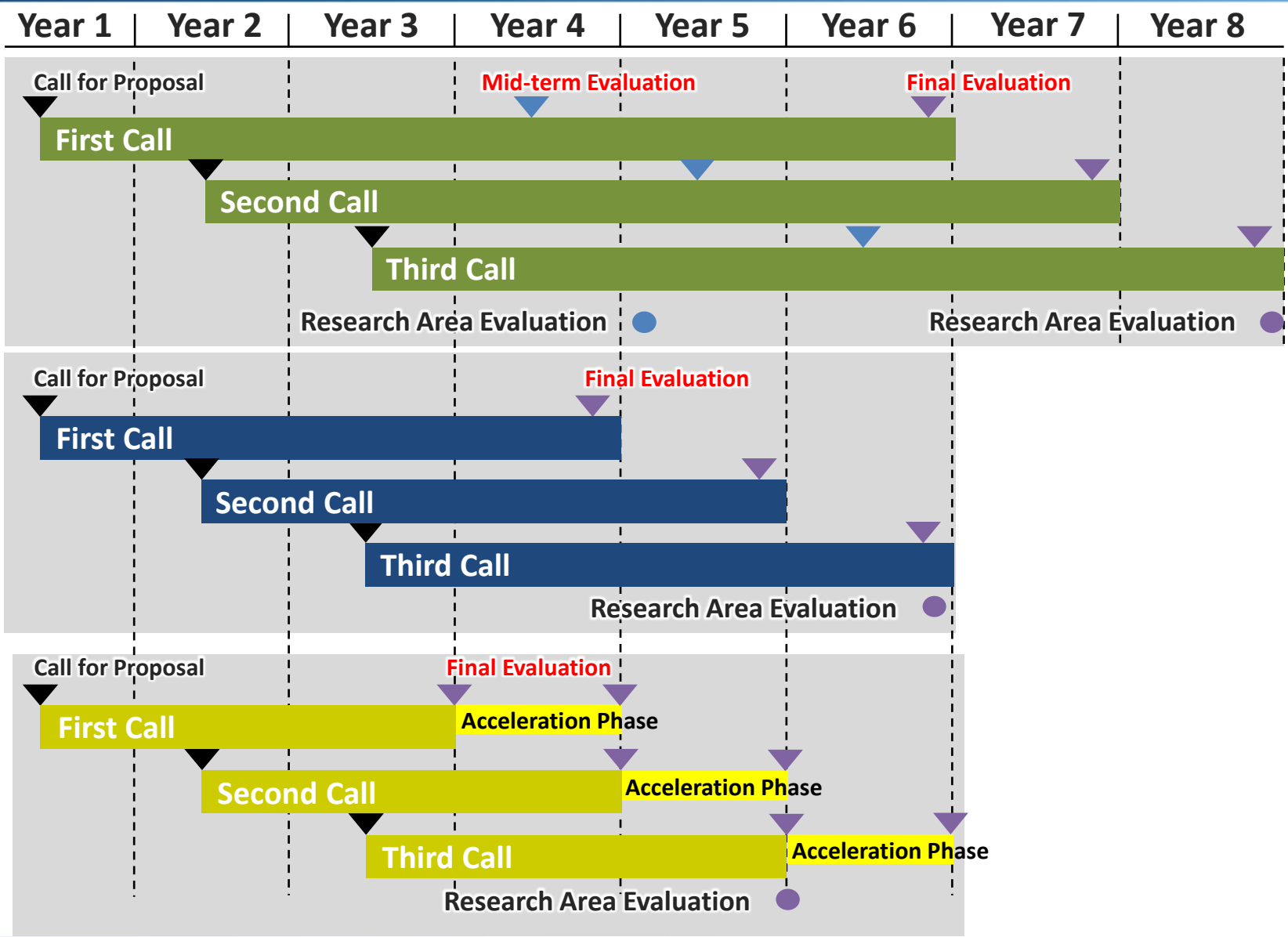
	Male	Female	Total
Proposal	317	60	377
Select	75	19	94

Master Course Students:
Proposal 15, Selected 7
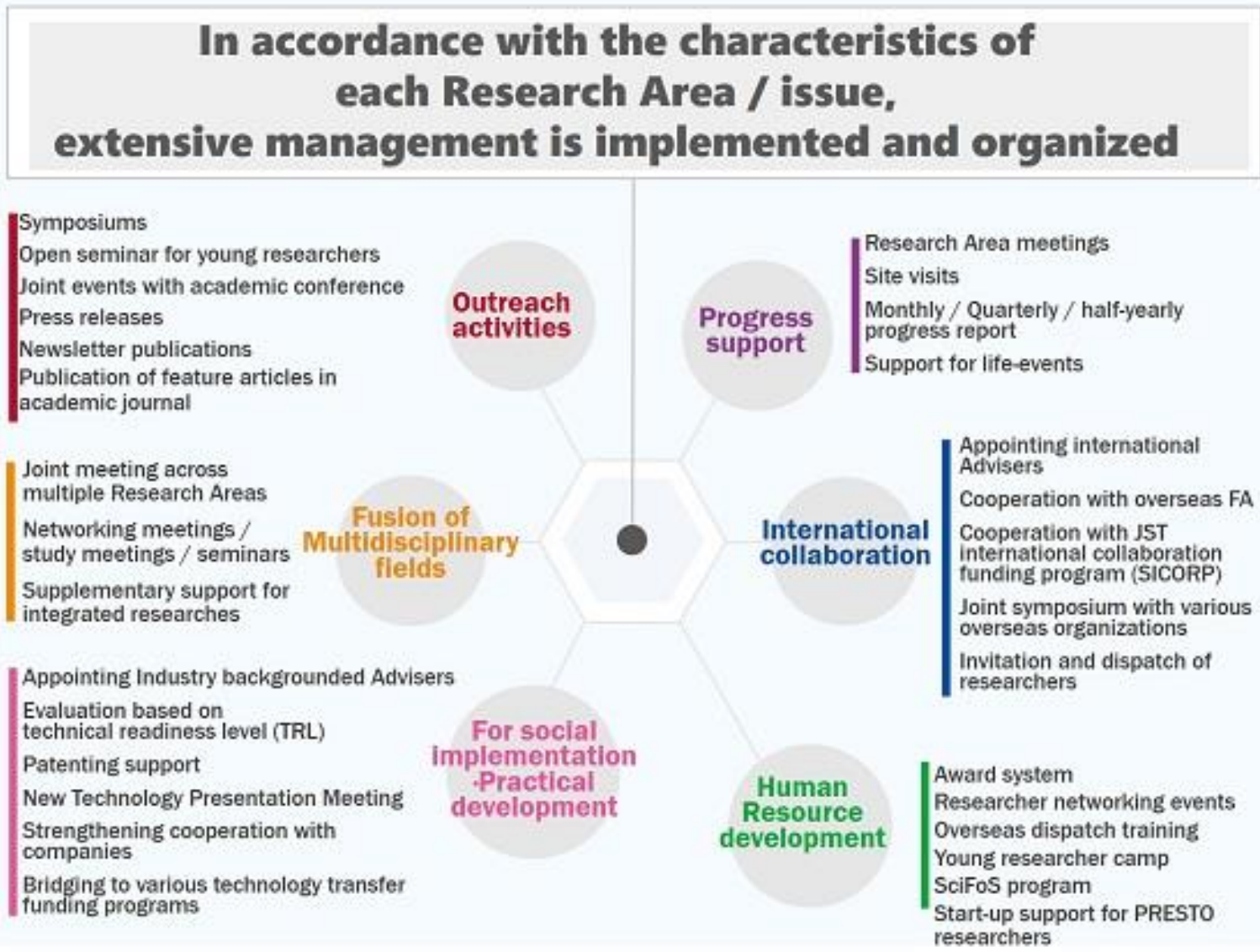Doctor Course Students:
Proposal 59, Selected 13

Recent changes in Proposal/Selected
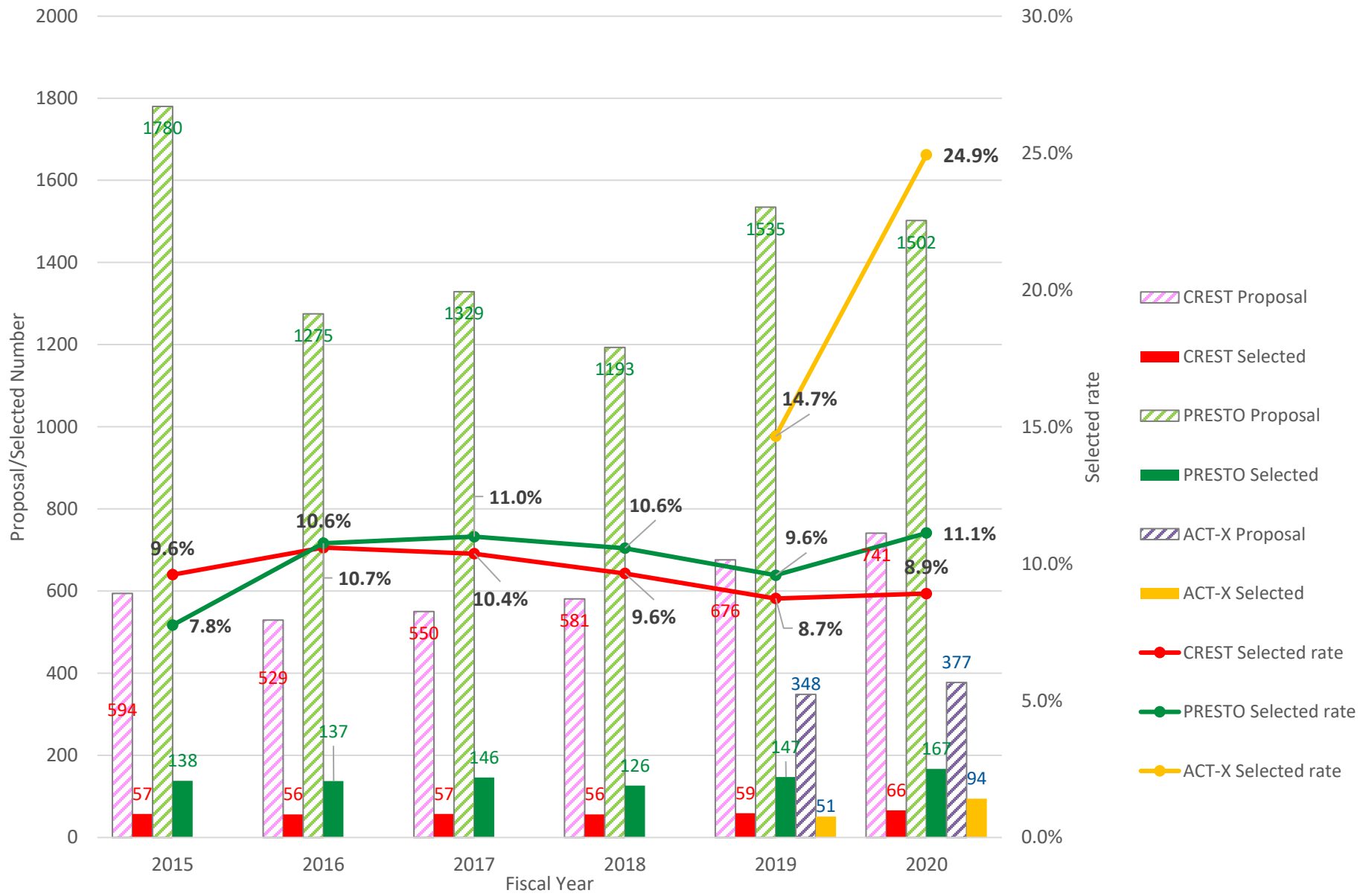
Feature of Strategic Basic Research Programs

In accordance with the characteristics of each Research Area / issue, extensive management is implemented and organized

Outreach activities
- Symposiums
- Open seminar for young researchers
- Joint events with academic conference
- Press releases
- Newsletter publications
- Publication of feature articles in academic journal

Progress support
- Research Area meetings
- Site visits
- Monthly / Quarterly / half-yearly progress report
- Support for life-events

Fusion of Multidisciplinary fields
- Joint meeting across multiple Research Areas
- Networking meetings / study meetings / seminars
- Supplementary support for integrated researches

International collaboration
- Appointing international Advisers
- Cooperation with overseas FA
- Cooperation with JST international collaboration funding program (SICORP)
- Joint symposium with various overseas organizations
- Invitation and dispatch of researchers

For social implementation ·Practical development
- Appointing Industry backgrounded Advisers
- Evaluation based on technical readiness level (TRL)
- Patenting support
- New Technology Presentation Meeting
- Strengthening cooperation with companies
- Bridging to various technology transfer funding programs

Human Resource development
- Award system
- Researcher networking events
- Overseas dispatch training
- Young researcher camp
- SciFoS program
- Start-up support for PRESTO researchers

Challenging in PRESTO program

SciFoS（Science for Society）

Activities to check hypotheses and gain awareness of your research through interviews with various stakeholders

1. Kickoff Meeting　　　2. Interview　　　3. Hypothesis Review

Feedback to the Research

* Learn the method and receive ongoing advice from a professional advisor.
* Interviewees will be introduced by JST while listening to the opinions of researchers.

Talk events

For the purpose of thinking about the significance and role of research in society, JST holds a "talk event" to explain easily the research activities and results to visitors of the National Science Museum "MIRAIKAN".

Short term study abroad program

Accelerate the research activities of PREST researcher by conducting overseas short visits to Silicon Valley, etc., and experiencing world-class development sites through dialogue and discussions with overseas investors and entrepreneurs.

AIP Network Laboratory

AIP: Advanced Integrated Intelligence Platform Project

AIP Network Laboratory is established in 2016 to promote innovative research activities in the field of AI, bigdata, IoT, and cyber security by utilizing the framework of JST Strategic Basic Research Program.

MEXT MINISTRY OF EDUCATION, CULTURE, SPORTS, SCIENCE AND TECHNOLOGY-JAPAN

AIP Project
*AIP（Advanced Integrated Intelligence Platform）

RIKEN
AIP Center
Director:
Dr. M. Sugiyama

Promote Integrally

Personnel /Results

JST AIP Network Laboratory
Laboratory Director : Dr. Katsumi Emura

CREST
- Bio-DX (Dr. Y. Okada) ★
- Society 5.0 System Software (Dr. Y. Okabe) ★
- Trusted quality AI systems (Dr. A. Aizawa) ★
- Mathematical Information Platform (Dr. N. Ueda) ★
- Symbiotic Interaction (Dr. K. Mase)
- Artificial Intelligence (Dr. M. Etoh)
- Intelligent Information Processing (Dr. N. Hagita)

PRESTO sakigake
- Platform Software Dr. T. Higashino) ★
- Trustworthy AI (Dr. H. Arimura) ★
- Math-Structure (Dr. T. Sakajo) ★
- IoT (Dr. H. Tokuda) ★
- Humans and Interactions (Dr. J. Rekimoto)
- Social System Design (Dr. S. Kurohashi)

ACT-X
- Math and Info (Dr. K. Kawarabayashi) ★
- AI Powered Research Innovation / Creation (Dr. Y. Kuniyoshi) ★

ACT-i
- Information and Future (Dr. M. Goto)

★ Research Area calling for Proposals in FY2021

Flow: application to research start

Application
— **Application of research proposals for each research area**

Document Screening
— **Research supervisors, advisors, etc. select interviewee based on research proposals**

Interview Screening
— **Interview screening by research supervisors and advisors**

Selection
— **JST selects research proposers and research subjects based on the selection results from research supervisors**

Research Planning
— **Successful applicants prepare research plan under research supervisor etc.**

Research Contract
— **JST concludes research contract with the researcher's affiliated research institution**

Research Start

FY2021 Call/Selection Schedule

FY2021, there will be 2 Terms for Call/Selection procedure.

1st Term (Existing Research Areas)

PRESTO, ACT-X
Proposal Deadline | **12:00 Tue May 11th**

CREST
Proposal Deadline | **12:00 Tue May 18th**

Japan Time

2nd Term (New Research Areas)

PRESTO, ACT-X
Proposal Deadline | **12:00 Tue June 1st**

CREST
Proposal Deadline | **12:00 Tue June 8th**

Japan Time

After Deadline	1st Term	2nd Term
Document Selection	Mid June - Early July	Early July – Late July
Notification of Document Selection	Late June – Mid July	Early July - Early August
Interview Selection	Early July – Mid July	Late July – Mid August
Notification and Publication of Selection	Late August – Late September	Late August – Late September
Research Start	October or After	October or After

Please note that we will not accept any proposals after the deadline.

* For the latest Call/Selection schedule, please check the website of Call for Research Proposals.

Japan-France Joint Research Proposals (CREST)

- JST has an Agreement with ANR (The French National Research Agency) to support Japan-France joint research projects within the framework of CREST
- In FY2021, JST agreed with ANR to establish the following three CREST Research Areas as common priority research areas and to invite Japan-France joint research proposals, as well as regular (non-joint) proposals:

[Nanomechanics] Elucidation of macroscale mechanical properties based on understanding nanoscale dynamics for innovative mechanical materials(Research Supervisor: Dr. Kohzo Ito)

[Mathematical Information Platform] Creating information utilization platform by integrating mathematical and information sciences, and development to society(Research Supervisor: Naonori Ueda)

[Trusted quality AI systems] Core Technologies for Trusted Quality AI Systems (Research Supervisor: Akiko Aizawa)

Application Process

1. To apply, Principal Investigators (PIs) from the Japanese and French sides prepare a common joint research proposal and submit it to JST and ANR in parallel. The joint research proposal should be prepared in English using the Common Application Form.
2. The PI from the French side will apply and submit the common joint research proposal to ANR.
   AND application acceptance period: Friday February 12 – **Thursday May 6th, 10AM CEST**.
3. PI from the Japanese side will apply and submit the common joint research proposal to CREST via the e-RAD system with a summary of research proposal in Japanese.
4. JST and ANR will evaluate proposals in parallel and make common funding decisions.
5. Funded research projects will start in October 2021 or later.

* For details please see the website

Selection Criteria: CREST * For details, see Chapter 5

Selection Criteria for CREST is below. All criteria from a to d should be satisfied.

a. Contributes to the achievement of a Strategic Objective.

b. Consistent with the Research Area purpose.

c. Basic research that is unique, highly appreciated internationally, and expected to produce outstanding results that contribute greatly to scientific and technological innovation.

d. Meets the following all conditions

- The research project applicant has produced research results for achieving the research objectives.

- Promising preliminary results have been obtained for pursuing the research project.

- The research proposals is clearly specifying : (i) the background of the research project (its necessity and importance); (ii) the research record of the research project applicant; and (iii) the research initiative and plan, separately.

- An optimal research organization is proposed.

- The research project applicant will exercise strong leadership and bear responsibility for the entire research team. And if there are Lead Joint Researchers, they are essential for the pursuit of the research project. A collaboration framework sufficient for enabling significant contributions toward the achievement of research objectives is provided.

- Research budget plan is necessary and sufficient for pursuing the research project.

- The research institutions with which the research project applicant and Lead Joint Researchers are affiliated have R&D capabilities and other technical foundations in the subject research field.

*Whether or not it corresponds to Unreasonable Duplication or Excessive Concentration is also a factor in the selection.
*Please also check the HP for policy of each research area

Proposal Submission Requirements : CREST (1/2)

Requirements for Research Project Applicants

- **Research project applicants, who will be the Research Director, must be affiliated with a domestic Japanese research institution, where they will organize and pursue the proposed research (The nationalities of research project applicants are not considered.)**

  ※ The following types of individuals may also submit research project proposals.
  - ・ 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 Research Director, will be able to organize and pursue research as a researcher affiliated with a domestic Japanese research institution. (Nationality will not be considered.)

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

- **Researchers who are able to bear overall responsibility for a research project as the party responsible for the research team throughout the entire research period.**

- **The applicant must either: have already completed the educational program for research integrity at his/her affiliated research institution; or complete the JST- designated educational program by the application deadline.**

Requirements for Organizing a Research Project

- **A research team is optimally organized for pursuing the research initiatives of the research project applicant, who will be the Research Director.**

Requirements for Organizing a Research Project

- When a joint research group is organized to work with the research team, the joint research group is essential for pursuing research initiatives and can contribute significantly to achievement of the research objectives.

- Researchers who are presently PRESTO, ACT-I (Acceleration Phase), ACT-X, PRIME[*] Researchers are ineligible to be a Lead Joint Researchers. For more details, please refer to **"Chapter 9 Limitations on the Multiple Application within the Strategic Basic Research Programs"** of Application Guideline.

※We strongly welcome participation by research groups overseas in the CREST program. However, the research costs of the groups belonging to an institute overseas, are, in principle, not funded by JST; therefore, their research costs may need to be funded by themselves.
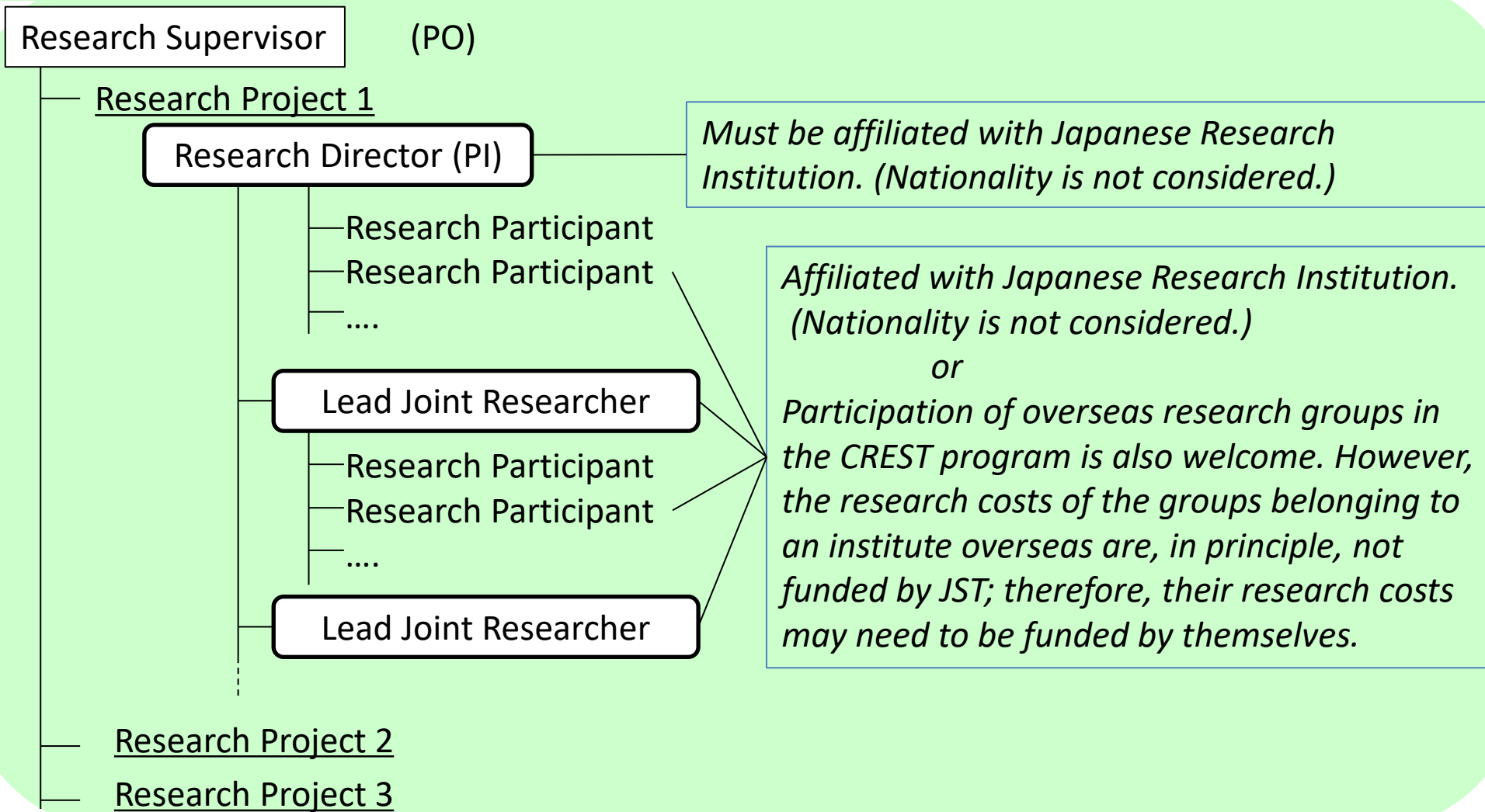
Research Institution Requirement

- Research Institutions must fully understand that the research funds are public funding, ensure compliance with related law, and make efforts to conduct the research effectively.

- When applying, prior consent of the Research Institution at which the implementation of research is planned must definitively be obtained.

CREST ... Research Team Organization

* For details, see Chapter 2, 5

(Reference)

CREST Research Area

Research Supervisor (PO)

└── Research Project 1

Research Director (PI) ——— *Must be affiliated with Japanese Research Institution. (Nationality is not considered.)*

├── Research Participant
├── Research Participant
└── ....

Lead Joint Researcher

├── Research Participant
├── Research Participant
└── ....

Lead Joint Researcher

Affiliated with Japanese Research Institution. (Nationality is not considered.)
or
Participation of overseas research groups in the CREST program is also welcome. However, the research costs of the groups belonging to an institute overseas are, in principle, not funded by JST; therefore, their research costs may need to be funded by themselves.

├── Research Project 2
└── Research Project 3

Selection Criteria: PRESTO * For details, see Chapter 5

a. **Contributes to the achievement of a Strategic Objective**

b. Consistent with the **Research Area purpose**

c. **Basic research** that is **unique, challenging, internationally expected to develop to an advanced level**, and expected to produce **groundbreaking results** that lead to scientific and technological innovation

d. The research project applicant can be expected to contribute to the development of the subject overall PRESTO Research Area and to the ongoing development of related research fields through the content of the proposed research, the applicant's research approach, and the applicant's efforts to engage with other researchers in discussions and activities that mutually inspire.

e. Meets all of the following conditions

- The uniqueness of the research project is based on the original ideas of the research applicant.
- Promising preliminary results have been obtained for pursuing the research initiative.
- The proposed research project is of a scale appropriate for pursuit by an individual researcher.

*Measures against Unreasonable Duplication and Excessive Concentration will also be considered
*Please also check the HP for policy of each research area

Requirements for Research Project Applicants

The research project applicant must be the actual person who will be the PRESTO **Individual Researcher**.

The research project applicant must be the proposer of the subject research initiative and must be the researcher who will **independently perform research work** in pursuit of the research initiative.

Research project applicants **must hold Japanese citizenship** or be **a foreign researcher who will pursue research work within Japan**.

The researcher must be a person who **can take responsibility for his/her PRESTO research project throughout the entire research period** and oversee it to its completion.

Other requirements (research integrity program, responding to misconduct in research, etc.) are described in the Application Guidelines. JST strongly recommends that all applicants check these requirements.

* For details, see Chapter 3

Requirements for Research Institutions conducting PRESTO Research

Research institutions conducting PRESTO research must fully recognize that the research funds are public funding, ensure compliance with related laws and regulations, and make efforts to implement the research effectively.

When applying, the **prior consent of the research institution** at which the implementation of research is planned shall definitively be obtained.

As for **"PRESTO-Researcher JST employed",** your host institution will be requested to **conclude a job assignment contract with JST**. You must obtain the permission of your host institution for this type of contract in advance.

Requirements for Performing Research Work at an Overseas Institution

Need to be a **joint appointment researcher**.

Need to describe the reason for carrying out the research at an overseas research institution (PRESTO-Form 7).

Overseas research institutions must, in principle, conclude **a contract with JST based on the terms and conditions presented by JST**. For that purpose, please provide the contact information (name of department/ division manager in charge of contracts at the overseas research institution) and **submit a document (to be provided later) by the date of your interview**.

Types of PRESTO Researcher Appointments

＊For details, see Chapter 3

PRESTO Researchers, whose research proposals applied to PRESTO has been approved, and will conduct the PRESTO projects by either Joint Appointment or Exclusive Appointment as described below.

Joint appointment

This appointment type is for Individual Researchers conducting their PRESTO research at their affiliated institutions and concurrently receiving a commission form JST as a joint appointment researcher. For PRESTO only, JST pays a fixed amount of salary, monthly, to Individual Researchers for their work, based on JST regulations. Individual Researchers are covered by the social insurance service of their affiliated institutions.
※ April 2022 and after, the Joint appointment as concurrently working for JST will be discontinued. Along with that, monthly salary payment will also be abolished.

Exclusive appointment (limited to research at Japanese research institution)

This type of appointment is for Individual Researchers who are not affiliated with either a research institution or a company, or who must resign their current positions in order to conduct the PRESTO research. JST and the research institutions conclude both a job assignment contract and a Collaborative Research Agreement

From the viewpoint of safety and health management, Exclusive appointment researchers are limited only from domestic research institutions, and not from overseas research institutions.

Currently, researchers who belong to overseas research institutes can apply for environmental maintenance expenses in addition to their usual research expenses if it is necessary to prepare the research environment for conducting PRESTO research at domestic research institutions. Details will be announced after adoption.

Selection Criteria: ACT-X

The selection criteria common to each ACT-X research area are as follows.
All items from a. to e. must be satisfied.

a. Contribute to the achievement of strategic objectives.
b. Consistent with the Research Area purpose.
c. Proposals that are original, challenging, innovative, and expected to attain high-quality developments by international standards over the coming decades and generate new values necessary for scientific and technological innovation.
d. The research project applicant is expected to contribute to the development of the subject overall ACT-X Research Area and to the ongoing development of related research fields through the content of the proposed research, the applicant's research approach, and the applicant's efforts to engage with other researchers in discussions and activities that mutually inspire.
e. Meets all of the following conditions • The uniqueness of the research project is based on the original ideas of the research applicant. • The proposed research project is of a scale appropriate for pursuit by an Individual Researcher.

*Measures against Unreasonable Duplication and Excessive Concentration will also be considered

*Please also check the HP for policy of each research area

Requirements for Research Project Applicants: ACT-X

Requirements for Applicants

For details, see Application Guidelines Chapter 4

- The research project applicant must be the actual person who will be the individual researcher.
- **Applicants must have received their doctoral degree less than 8 years before April 1st. 2021**
  * If the applicant does not hold a doctoral degree, he/she must have received a bachelor's degree less than 13 years before April 1, 2021.
  * Maternity leave and childcare leave acquired after obtaining a degree are excluded from the above-mentioned time periods (8 years, 13 years)
  The above notwithstanding, persons who are currently students can only apply for this program.
- The applicant must write his/her research proposal as a person who suggested the idea and undertake such research independently, to bring the idea into reality. The ACT-X program is open to researchers from corporations and other entities, so long as they are deemed fully capable of conducting individual research in accordance with the ACT-X policy.
- Applications by students in masters and doctoral programs are required to be submitted via e-Rad, with a memorandum of confirmation on requirements co-signed by the applicant and his/her academic supervisor.
- Research of an applicant must be conducted at a research institution in Japan at the time of adoption, and **research must be conducted in Japan until the end of ACT-X research period.**
  * If you are a graduate student and graduate during the 2.5-year ACT-X program period, you may apply if you are willing to do your best to meet the above requirements so that you can continue the ACT-X program after graduation.
  * There are no limitation on the individual researcher's nationality, but the researcher must be able to handle paperwork in Japanese (or be in an environment that can handle it).
  * ACT-X will hold progress meetings in Japanese after selection, so a certain level of Japanese communication skill is required.
- The researcher who can conduct the ACT-X research tasks responsibly throughout the entire research period.
※ Other requirements include completing a research ethics education course and pledging not to commit research misconduct.

Requirements for Institutions

- In conducting research, research institutions must fully recognize that the funding for contract research is public funding, comply with relevant laws and regulations, and strive to conduct research efficiently.
- Before applying, be sure to obtain the prior consent of the research institution where the research will be conducted.

*For detail, please refer to Application Guidelines Chapter 9

- An applicant may submit only one Research Proposal to one of Research Areas of the CREST, PRESTO, ACT-X, AMED-CREST, or PRIME program which calls for application in FY2021.

- Applicants in the position of a to i currently, cannot apply for CREST, PRESTO, or ACT-X as a research proposer (Except for CREST and PRESTO area ending at fiscal year 2021 or CREST/PRESTO applications during ACT-X (early graduation)). If applicants are in the position of a to c or e to h in the past, they cannot apply for "ACT-X".
    a. Research Supervisor or Deputy Research Supervisor of ERATO in the Strategic Basic Research Program
    b. Research Director of CREST in the Strategic Basic Research Program
    c. Individual Researcher of PRESTO in the Strategic Basic Research Program
    d. Individual Researcher of ACT-I acceleration phase in the Strategic Basic Research Program
    e. Research Director of AIP acceleration subject in the Strategic Basic Research Program
    f. Research and Development Director of AMED-CREST in the Strategic Basic Research Program (Advanced Research and Development Programs for Medical Innovation)
    g. Research and Development Director of PRIME in the Strategic Basic Research Program (Advanced Research and Development Programs for Medical Innovation)
    h. Research and Development Director of FORCE, LEAP in the Strategic Basic Research Program (Advanced Research and Development Programs for Medical Innovation)
    i. Individual Researcher of ACT-X in the Strategic Basic Research Program

- CREST has restrictions on applying as a Lead Join Researcher or other Research Participant. For detail, please refer to the Application Guidelines.

- "PRESTO", "ACT-I (Acceleration Phase)", "ACT-X" Individual researchers and "CREST" Lead Joint Researcher cannot be conducted simultaneously. However, this does not apply to cases where the research period will be finished in FY2020. From FY2020, the same limitations will be applied for PRIME Individual Researchers, AMED-CREST, PRIME, FORCE, LEAP R & D Research and Development Sharer, and ERATO Group Leaders. For details, see "Chapter 9 Table 1: Possible / Impossible Applications to the CREST, PRESTO, and ACT-X Programs, and Table 2: Possible / Impossible SIMULTANEOUS Applications to the CREST, PRESTO and ACT-X programs".

Research proposals are called for in each Research Area.

At research proposal submission, please confirm the followings.

- Outline of research area
- Research period, research expenses (direct expenses)
- Research Supervisors' direction and policy about call, selection, and research area management
  - * The briefing explanation videos and materials are posted on the web page of "Call for Research Proposal", and please see them.
- Strategic objective

Web page of the "Call for Research Proposal"

https://www.jst.go.jp/kisoken/boshuu/teian/en/top/ryoiki.html

Proposals should be submitted via the e-Rad system
http://www.e-rad.go.jp/

Researchers who do not have a login ID and password should immediately complete the researcher registration procedure

✓ **Every year, there are many troubles caused by applying just before the deadline, so please allow enough time to apply.**

✓ **JST will not accept proposals which the application process has not completed on the e-Rad system by the deadline for any reasons!**

✓ **After the deadline, Application Withdrawal is strictly prohibited**

* JST will not be held responsible for any deficiencies in the form or text that occur by the application deadline, regardless of whether the proposal is accepted or rejected. Therefore, please be aware in advance that JST will not correct the proposal after confirming with the applicant in advance, or will not make any correction request to the applicant by the application deadline.

Remind point at application (3)
Conflict of Interest with Research Supervisor

Applicants who have the conflict of interest with Research Supervisor as shown in 1) through 3) below shall be excluded from selection.

1) The research project applicant is a relative of the Research Supervisor

2) The research project applicant and the Research Supervisor are both affiliated with the same smallest organizational unit (i.e. same research lab) of a university, national or other national government-funded research institution or, the research project applicant and the Research Supervisor are affiliated with the same company

3) The research project applicant and the Research Supervisor are presently working in close cooperation on the same joint research project, or have done so within the past three years

Teacher-apprentice relationship for a total of 10 years or more", which was the subject of interest last year, will not be covered this year.

If the judgment is difficult, please contact JST

<1st Term Call> If your inquiry is received by Tuesday April 20, JST will reply before the deadline. If your inquiry is received after Wednesday April 21, the reply from JST may be after the deadline.

<2nd Term Call> If your inquiry is received by Tuesday June 2, JST will reply before the deadline. If your inquiry is received after Wednesday June 2, the reply from JST may be after the deadline.

* Please submit the Conflict of Interests inquiry form when required.
    https://www.jst.go.jp/kisoken/boshuu/teian-en.html

* (Attachment) Please also use the pre-submission confirmation sheet about Conflict of Interests with the Research Supervisor"

Based on the revision of the "Guidelines for the Proper Execution of Competitive Funds" (FY2012), JST strictly deals with cases of inappropriate usage of research funds and Restriction Measures are taken against the application and participation eligibility of researchers, depending on the levels of inappropriate usage .
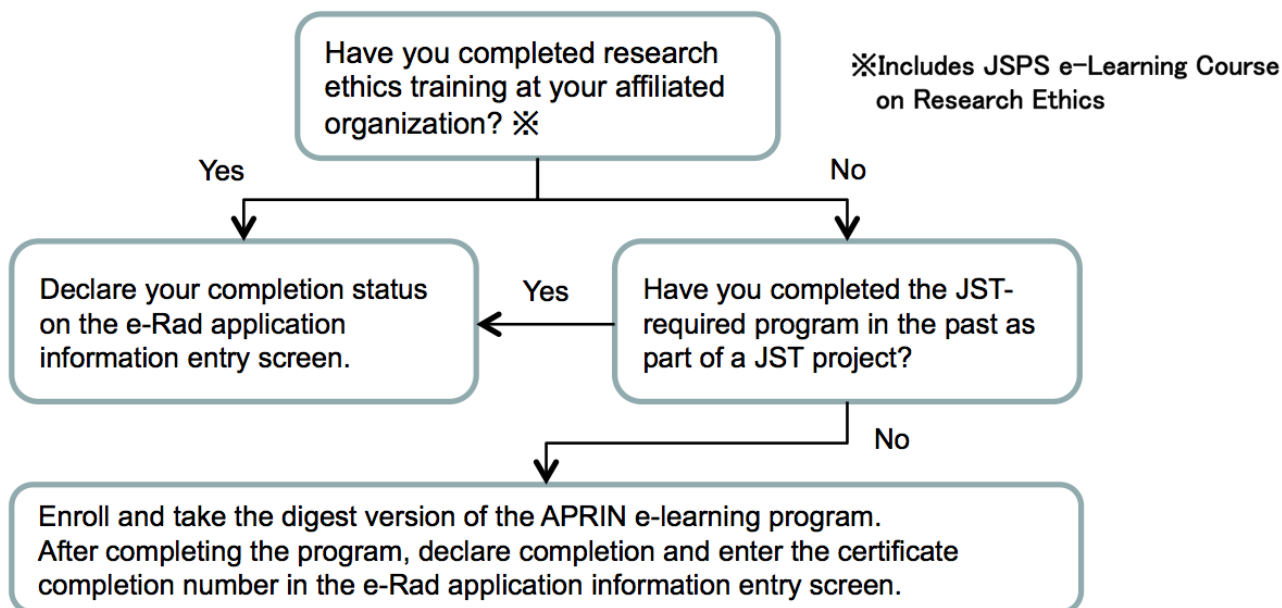
Classification of person who committed or is involved in misconduct in use of research budget	Extent of maliciousness in misconduct		Period of ineligibility for applying to competitive research fund, deemed to be reasonable
A researcher who committed a misconduct or a researcher who was in conspiracy with a person who committed a misconduct	1. Use of a research budget to make a private profit		10 years
	2. Other than 1.	①Impact of the misconduct on the society is substantial and maliciousness of the misconduct is judged to be high	5 years
		② Neither ① or ③	2-4 years
		The impact of the misconduct on the society is small and the maliciousness of the misconduct is judged to be low.	1 year
A researched 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			5 years
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 *			1 to 2 years (in maximum) in accordance with the degree of failure of fulfilling his/her duty of due care of prudent manager

* Although it was not recognized that it was involved in inappropriate usage, etc., Researchers who violate their duty of due care of prudent manager.

The research project applicant **must complete the educational program for 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

URL： https://edu2.aprin.or.jp/ard/

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

Have you completed research ethics training at your affiliated organization? ※

※Includes JSPS e-Learning Course on Research Ethics

Yes / No

Declare your completion status on the e-Rad application information entry screen.

Yes ← Have you completed the JST-required program in the past as part of a JST project?

No

Enroll and take the digest version of the APRIN e-learning program. After completing the program, declare completion and enter the certificate completion number in the e-Rad application information entry screen.

For detail, please see the Website or Application Guideline

Equipment and Apparatuses Sharing

In accordance with the policy of the Japanese Government, it is necessary to operate a "shared system of research equipment and apparatuses of research organization" (hereinafter referred to as research equipment and apparatuses sharing system) in universities and national research institutes, etc. It is especially considered appropriate to share large equipment and apparatuses on competitive research funds in principle.

Based on this policy, please check the following points prior to application;

1. Purchase and sharing by combining multiple research expenses of research equipment and apparatuses
2. Sharing with other research etc. within the range that does not imped the promotion of the proposed research subject
3. Utilization of research equipment and apparatuses purchased by other research expenses etc.
4. Aggressive utilization of commonly available devices and confirmation of redundancy with existing devices that can be utilized
5. Proactive registration in purchasing research equipment and apparatuses sharing system etc.

JST may check the condition of use of the equipment and apparatuses sharing system

● When research requires compliance with legal and/or regulatory procedures, complete all the necessary procedures such as obtaining approval from the ethics committee inside and outside of the research organization.

- In implementing the research concept, research that requires consent and cooperation of the other party
- In the case of Studies that need consideration of handling of personal information
- Research requiring efforts for bioethics and safety measures

● When conducting on-site research activities overseas or joint research with overseas research institution, please check in advance and comply with all the relevant laws and regulations of the related countries

We expect passionate applications from young researchers.

We JST hope that young researchers will engage in challenging research and development through these projects and further expand their fields of activity.

PRESTO:
- Research Supervisors and Advisors will play the roll of "mentors"
- PRESTO will provide young researchers the opportunity to work on their own research project as PI
- PRESTO will create opportunities to interchange among researchers and create platforms for stimulating each other

ACT-X:
- Established in FY2019 to support young researchers to be an independent researchers
- ACT-X will provide opportunities for many young researchers, including graduate students, researchers at companies or who have just started their research careers

CREST:
- Many young researchers participate in each CREST research project. We ask our Research Directors to nurture young researchers in your team so that they are enabled to conduct their research independently and achieve good results and also being encouraged to play active roles in various fields in the future.

JST encourages positive contribution by Female Researchers

- "Diversity" is necessary for the base that brings about science and technology innovation. JST will try to resolve the issues of the future society by promoting diversity in all science and technology and will contribute to strengthening Japan's competitiveness and improving the affluence of the mind.

- JST is constantly improving the system, such as listening to the voices of researchers who are users of the "childbirth / child-rearing / nursing care support system" that has been implemented and creating an environment where researchers can return to research.

- When inviting applications for new research projects and during the screening process, applications are also considered from the perspective of diversity

Diversity Initiatives at JST
https://www.jst.go.jp/diversity/index.html

Diversity initiatives in CREST, PRESTO, and ACT-X
https://www.jst.go.jp/kisoken/crest/nadeshiko/index.html

JST contributes to the implementation of the SDGs

- In September 2015, the United Nations General Assembly unanimously adopted the 2030 Agenda for Sustainable Development that comprise of 17 Sustainable Development Goals (SDGs) and 169 targets. The SDGs provide the universal goals to the issues the world including Japan and the humanity faces.
- JST promotes not only the research and development (R&D) but also plans R&D strategies as well as enhance science communication, science education and open data, we are taking inclusive initiatives nationally and internationally for achieving the SDGs.

In case that research funds are used inappropriately in a research project, measures will be taken to cancel the research and return all or part of the research funds. In addition, depending on the level of the fraud, etc., measures will be taken to restrict applications and participation in this program and other competitive funding programs in Japan.

- Public research funding is funded by the precious tax paid by citizen and must be properly managed according to the usage rules of the funding agencies and the research institutions.
- Care is required, as misunderstanding of the rules of use often leads to unexpected misconduct.
- It is important to consult regularly with the administrative staff of the research institution, etc. to confirm the usage rules of research funds.

Main Measures for Researchers Involved in Fraud

Personnel disposal
[Disciplinary rules of institution]

* Examples of disciplinary actions include disciplinary exclusion, suspension, and salary reduction.

Refund of inappropriately used funds
[Subsidy adequacy law or Research Agreement Clause]

* Additional fees etc. will be added according to the date from the time of unauthorized use to the return.

Criminal Penalties
[Criminal Law]

* Many malicious fraud cases are fraudulent.

Competitive funding eligibility restrictions
[Consultation with relevant ministries]

* Please note the revised law of FY2012.

JST decided that researchers should **formulate and implement data management plans after selected** if the research areas are expected to generate research outcomes or novel goods, services and market through sharing and utilizing the research data.

Items to be included in the Data Management Plan
1. Policy for storage and management of the research data
2. Policy for open/close of the research data
3. Method and system for distribution of the open research data
4. Expected usage of the open research data
5. Action for the promotion of utilization of the open research data
6. Others

※ This policy is basically applied to all research areas that start in or after 2016

Selected CREST Research Director and the Lead Joint Researcher, PRESTO Individual Researcher and ACT-X Individual Researcher need to register "researchmap"

- JST's Strategic Basic Research Programs including CREST, PERSTO and ACT-X utilize "research map" as a master database of achievement information in various areas, including future achievement reports. In addition, the community function of "researchmap" is used for project management, including distribution of various files and event notices.
- The information in "researchmap" is utilized effectively for surveying national academic or science and technology plans, as well as for statistical purposes.
- During these JST's program, researchers will apply their research plans and reports through **JST's research project management system "R3 ... R-cube"** working with "researchmap".

Applicants as CREST research director and the lead joint researcher, PRESTO individual researcher and ACT-X individual researcher, who will have the research interview, need to register "researchmap". For this reason, researchers who have not yet registered are recommended to register as soon as possible.

● **Guidelines for CREST PI (Principal Investigator)**

Measures during research period	A person who can take a role on behalf of the principal investigator can continue to promote the research.
Extension of research period	The research project period will not be extended.
Research budget	Not changed

● **Support system for CREST research participants**

Eligibility	Researcher who participates in a CREST project and is hired by its research budgets (full-time) ＊ Regardless of gender
Qualifying life event	① During pregnancy (only for those who plan to continue research after giving birth) ② Childcare (until child enters elementary school) ③ Nursing care
Support period / amount	Until the end of each fiscal year ＊Continuous application is possible. 300,000 yen per month x number of support months
Items that can be spent	Employment of assistants, purchase of consumables and equipment, etc. that are useful for promoting research and reducing the burden (within the amount of research budgets)

● **Guidelines for a PRESTO individual researcher**

Measures during research period	The research can be suspended on a weekly basis.
Extension of research period	Can be extended on a weekly basis up to the number of weeks suspended. However, if the end of the research period was originally the end of March, the maximum extension period is one fiscal year; until the end of March of the following year.
Research budget	Research budgets can be used as originally planned.

● **Guidelines for an ACT-X individual researcher**

Measures during research period	Research can be suspended depending on the period of vacation and absence.
Extension of research period	If the research is suspended, it can be extended for one year. However, when a project is selected for the Acceleration Phase before extension due to a life event, the extension period is replaced with the Acceleration Phase period. If the research is suspended during the Accelerated Phase, it can be extended for one year.
Research budget	Research budgets can be used as originally planned.

※ Eligible life events and period
Childbirth: 6 weeks before giving birth (14 weeks for multiple pregnancy) and 8 weeks after giving birth
Childcare: Continuous period until child reaches one year of age
Nursing care: Period deemed necessary within a continuous six-month period

Call Information

Remind points after selection (6)
Relaxation of direct costs expenditure conditions: Buyout system, PI personnel
Expenses & Self-motivated Research Activities by Young Researchers

New

● **Use of Direct Costs for Someone to Carry Out Duties Other Than Research (Buyout System)**

https://www.jst.go.jp/kisoken/crest/manual/buyout_houshin.pdf

- **Eligibility:** PI (affiliated in universities, etc.) of CREST, PREST (excluding exclusive appointment researchers) and ACT-X(excluding students)
- **Expenditure limit:** CREST : no more than 20% of the direct cost of each fiscal year
  PRESTO: 2 million yen/year
  ACT-X: 0.3 million yen/year

● **Use of Direct Costs for Principal Investigator (PI) Personnel Expenses**

https://www.jst.go.jp/kisoken/crest/manual/pi_houshin.pdf

- **Eligibility :** PI (affiliated in universities, etc.) of CREST, PREST (excluding exclusive appointment researchers) and ACT-X
- **Expenditure limit:** CREST : no more than 10% of the direct cost of each fiscal year
  PRESTO: 1 million yen/year
  ACT-X: 0.15 million Yen/year

● **Self-motivated Research Activities by Young Researchers Employed with Competitive Research Funds**

https://www.jst.go.jp/kisoken/crest/manual/senjukanwa_houshin.pdf

- **Eligibility :** Researcher participants (affiliated in universities, etc.) hired by CREST research budgets and PRESTO exclusive appointment researchers

Information of Call for Research Proposal

We welcome applications and participation from researchers who boldly engage in challenging research that creates the source of top innovation from outstanding basic science.

● For more information of Call for Research Proposal, please visit the website below.

https://www.jst.go.jp/kisoken/boshuu/teian-en.html

* Information such as documents, interview selection, schedule of selection result notification, etc. will be updated as appropriate.

● Please refer to the past year's research summary review.

CREST	https://www.jst.go.jp/kisoken/crest/application/index.html	(Japanese only)
PRESTO	https://www.jst.go.jp/kisoken/presto/application/index.html	(Japanese only)
ACT-X	https://www.jst.go.jp/kisoken/act-x/application/index.html	(Japanese only)

● Contact about Call for Research Proposal

Please contact us from the above website "Contact Information".

For inquiries by email, please contact "rp-info@jst.go.jp".

<For Reference> Information via twitter

- CREST, PRESTO, ACT-I/X twitter **@JST_Kisokenkyu** also provides information of research proposal application, symposium, etc.

> **CREST, PRESTO, ACT-I/X twitter**
> @JST_Kisokenkyu