

Review Guidelines for
World Premier International Research Center (WPI) Initiative

22 March 2007
WPI Program Committee

The selection of projects under the WPI Initiative is carried out under the following guidelines.

1. Basic Screening Policy

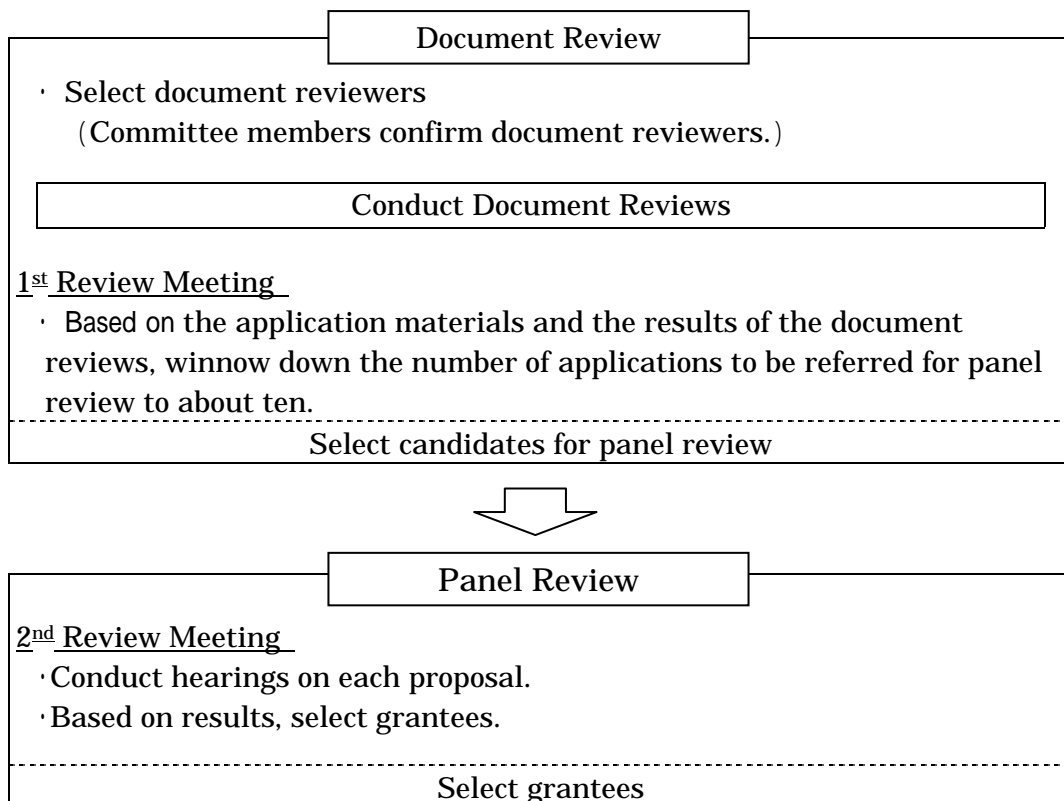
Projects are to be selected that have highly attractive research objectives and contents and that possess a high feasibility of establishing the following type of research center: Centers of a quality that will be of strong incentive for many of the world's top researchers to want to work at them; that is, centers whose excellent research environment and extremely high research standard will make them "globally visible."

2. Screening Procedure

(1) Procedure

In vetting applications for this program the WPI Committee (hereafter referred to as the Committee) carries out a two-tier process of document and panel reviews. A quorum comprises one half the established number of committee members. Decisions are made by a majority vote of the members attending a meeting.

< Screening Process >



(2) Carrying out document reviews

[1] Procedure

- A number of document reviewers will be selected based on the guidelines stipulated in the separate document "Implementation of Document Reviews".
- The reviewers will be sent a set of application documents for those applications received by the deadline.
- Using these guidelines and the Document Review Form (separately prepared), the reviewers shall evaluate the contents of the applications and send their results to the secretariat by the specified deadline.

[2] Selecting candidates for panel review

- A set of applications received by the deadline will be sent to each Committee member.
- At the Committee meeting, the members shall deliberate the proposals based on their application materials and the document review results, and shall choose about ten to refer for panel hearings. For those applications not referred, the reasons shall be noted.
- The secretariat shall notify the applicants chosen of the date, time and place of their panel review.

(3) Carrying out panel reviews

[1] Procedure

- After notification is given to the applicants, the Committee shall be convened at the specified time and, based on the Panel Review Guidelines (separately prepared), hold a hearing with the chief entire-project officer, chief center-project officer and other officials of each referred project.
- Documents that applicants wish to be used in the hearing, other than the application materials, should be submitted to the secretariat in advance. Those not received by the prescribed deadline (separately notified) are prohibited from being used.
- A set of the hearing materials will be sent to the Committee members in advance.
- The hearings will be conducted in English. Questions and answers should as a rule also be in English. All materials used in hearings are to be prepared in English. Simultaneous interpretation will be provided at the hearings; however, all statements and remarks (e.g., explanations, answers to questions) by the chief entire-project officer and chief center-project officer shall be in English.
- The reviewers shall, based on these Review Guidelines, evaluate each center project application and record their scores and remarks on the Panel Review Form. The secretariat will tally the scores and compile the remarks, and report them to the Committee.

[2] Selecting the grantees

- Based on the hearing results, the Committee members shall deliberate and decide the projects to be selected. Regarding the projects that were not selected, the reasons shall be noted.

3. Screening Criteria

(1) Evaluating the center project

[1] Research fields

- Targeted should be a field of basic research (including one aiming at the transition from basic research to applied research), and should be fused into interdisciplinary field, spanning or combining two or more of research areas. Examples of research areas are as follows:

Biosciences, Chemistry, Material Sciences, Electronics Engineering and Information Sciences, Precision and Mechanical Engineering, Physics, Mathematics.

- Do the target fields have farsighted potential: Are they broad and solid enough to sustain research over the relatively long 10-year project-funding period?
- Are they fields in which Japan is strong compared to the rest of the world, and that have international appeal?

[2] Research objectives

- Are the stated research objectives achievable? If achieved, will the results be appraised as being top word level?
- Are the objectives articulated in such a way as to be easily understandable by the general public?
- Do the objectives seek to resolve world-level scientific issues? Can their achievement be expected to exert an impact on society?
- Is the research plan for achieving the objectives appropriate given the host institution's record of research results?

[3] Project management

- Has a center director been selected who can devote full time to recruiting highly qualified researchers and personnel, reforming systems and carrying out other operational functions?
- Is the director a person suitable to be the center's "face," who will give the center an attractive persona within the international community? Is s/he capable of performing the key functions of the position such as attracting and inviting outstanding researchers to the center?

- Does the director have a clear and comprehensive vision of how to develop the center?
- Has an administrative director been selected and an administrative system put in place that can offer strong administrative and managerial support to the director, while consistently maintaining an environment in which researchers can devote themselves fully to their work?
- Does the center's operational management system have a top-down decision-making mechanism centered around the director?
- With the exception of the hiring and firing of the director and the final approval on hiring principal investigators, does the center's system enable the director to make all operational decisions?

[4] Researchers and other center staff

- Does the center have a physical concentration (or core) of researchers of a certain scale, one that possesses a high research level?
- Is the research group an appealing one? Does it have an effective strategy for inviting principal investigators?
- As required in section 5. (4) a. and b. of the Application Guidelines, does the center's plan provide for at least 10-20 world-class principal investigators (full professors, associate professors or others of comparable standing), at least 10-20% of whom are foreign researchers invited from abroad, while the remainder come from within the host institution or are invited from other Japanese institutions? Does it set a target for the staffing of at least 200 staff members including young postdoctoral researchers, research support staffs, and administrative employees? Does it have an effective plan for ultimately meeting staffing targets according to a time schedule?
- As called for in section 5. (4) c., does the center's plan provide for at least 30% of the researchers to be from overseas, including those on short stays, at all times? Does it have an effective plan for ultimately meeting staffing targets according to a time schedule?
- Also as called for in section 5. (4) d., does the plan provide for at least half of the principal investigators who form the core to be ranked among the world's top researchers as measured by i) international influence, ii) receipt of large-scale competitive funding and iii) article citations?
- If the center plans to form satellite or other linkages with external organizations, will such linkages complement and/or strengthen the center's overall capacity through collaborative activities, equipment/facility sharing or other means?

[5] Research environment

- Have steps been taken to ensure that the staff function is sufficient to support an administrative system that enables researchers to devote themselves exclusively to their research?
- Is startup research funding provided and other measures taken to ensure that the top-caliber researchers invited to the center do not upon arrival lose momentum in vigorously pursuing their work out of concern over the need to apply immediately for competitive grants?
- To what degree are postdoctoral positions filled or to be filled through open international solicitations? (In principle, international solicitation should be used.)
- Is English established as the primary language for work-related communication? Are administrative personnel appointed who can facilitate the use of English in the work process?
- Has a rigorous system been put in place for evaluating research? Has a system for merit-based compensation (e.g., a merit-based annual salary system) been introduced?
- Are the equipment and facilities, including laboratory space, appropriate for a top world-level research center? (To give the center an appealing persona, a core environment should be established within it where the participating researchers physically gather to carry out their activities.)
- Are international research conferences or symposiums planned to be held at least once a year to bring the world's leading researchers together at the center?
- Are other measures taken to ensure that the researchers can comfortably devote themselves to their research at the center?

[6] Indicators for evaluating a center's global standing

- Are the criteria and methods for evaluating the center's global standing in the subject fields sufficiently objective, reliable and persuasive?
- Was the evaluation of the current state of a center (using the above criteria and methods) properly executed and was it of a level capable of predicting whether implementation of the plan is likely to achieve the project goals?
- Are the objectives of the project (both mid-term and final) set at a sufficiently high level to give the center a top world-level reputation?

[7] Securing research funding

- Based on the host institution's past record, can the center be expected to secure competitive grants and other research funding in addition to the funding provided under this program? (It is desirable that the host institution possess a past record of having acquired external research funding in an amount equivalent to at least 80% of the other competitive grants it is expected to secure for the project.)
- Can additional resources that match or exceed the amount of the project grant be secured to support the center's operations and its research activities? (They may, for example, be competitive funding obtained by the center's researchers, in-kind contributions and other forms of assistance by the host institutions or external donations.)

(2) Evaluating the appropriations plan

- Is the budget and its contents appropriate and does it provide the amount of financing required to implement and achieve the center's plan?

(3) Evaluating the host institution's commitment

- Is the center given a clear place within the host institution's overall strategy?
- As required in section 6. (1) of the Application Guidelines, will the host institution be able to support the center's need to secure resources that match or exceed the project grant for carrying out the center's operation and research activities?
- Has the host institution established a system under which the center director is able to make substantive personnel and budget decisions necessary to implementing the center project?
- Will the host institution support the mobilization of researchers from its faculties to the center?
- Will the host institution be flexible in applying its internal systems so as to facilitate the effective implementation of the center's new management methods (e.g., English-language environment, merit-based pay, top-down decision making) unfettered by conventional modes of operation? Is it committed to being cooperative in this regard?
- Is the host institution prepared to accommodate the center's infrastructural requirements (for facilities, including laboratory space; equipment; land, etc.)?
- Is it ready to provide other concrete support needed to make the center a top world-level research hub?

(4) Overall appraisal

- Will the implementation of the plan enable the realization of a truly top world-level research center, one capable of attracting top-caliber researchers from around the world?
- Will the proposed organization be able to sustain the center as a top world-level research center after project funding has ended?
- Will the center become a trailblazer in providing a model for developing a top world-level research center that can be emulated by other departments of the host institution or other institutions?

4. Others

(1) Disclosure

- So as to ensure the sound implementation of application reviews, neither the review process nor the review materials are to be publicly disclosed.
- The review results are to be released by posting them on MEXT's and JSPS's homepages and by other means after the awardees are selected.
- During Committee meetings, the members shall voice their views on how center proposals may be improved. Those recommendations will be forwarded to the applicants.
- Regarding applications that lack the proper qualifications, the applicants shall be informed of why their applications were not given a document review.
- Regarding applications that were reviewed but not selected, the reasons for the non-selection shall be provided to the applicants without specifying the review results of individual committee members.

(2) Conflicts of interest

If any of the below-listed elements are applicable to a committee member, s/he shall immediately inform the secretariat of such and withdraw from participating in the review of the subject application. That is, s/he shall not participate in either the document or panel review of the subject application; and if s/he is a member of the Committee shall leave the room and not participate in either the discussion or decision regarding that application.

- a) If s/he is a full- or part-time employee of the host institution (or is scheduled to become one), or if s/he has been employed by the host institution within the past three years

- b) If s/he is a relative of the center's chief entire-project officer or chief center-project officer or has a comparable close relationship with one of them
- c) If s/he has a close mentor relationship with the center's chief entire-project officer or chief center-project officer
- d) If s/he is scheduled to be a member of an evaluation committee established within the subject center
- e) If s/he is closely engaged in joint research with a researcher who will participate in the subject center
- f) If s/he would stand to gain something from the selection or non-selection of the subject project, or is in a position of opposition or competition vis-à-vis the project
- g) If s/he has any other reason that would make it difficult to conduct a neutral and fair evaluation.

(3) Confidentiality

- Committee members and document reviewers are prohibited from disclosing any personal information or review-related information learned during their participation in the review process.
- Committee members and document reviewers are required to keep review-related information and data (including applications and documents) separate from other materials and to maintain good stewardship over them.

Implementation of Document Reviews

1. Document Reviewer Selection Criteria

(1) Selection criteria

The document reviewers must have a good understanding of the factors involved in establishing a top world-level research center. They are to be selected based on either one of the following criteria.

[1] From the viewpoint of system reforms:

- Have abundant experience and expertise in the operation and research activities of universities, independent administrative institutions (IAIs) or other related organizations.
- Possess experience in research management

[2] From the viewpoint of research content:

- Have engaged as a specialist in research in related fields; have amassed a record of research results; and possess expert knowledge and insights
- Possess a good and wide knowledge of related fields

Reviewers are to be selected from a variety of perspectives to ensure impartiality in the screening process. In this regard, the following points should be borne in mind.

- a) A balance should be made among reviewers from universities, IAIs, private corporations and other organizations.
- b) A balance should be attempted in reviewer gender, home region, and age (up to 70 with possible exceptions).
- c) The appointment of foreign reviewers should be considered so as to perform evaluations reflective of what is appealing from an overseas perspective.

(2) Conflicts of interest

[1] Document reviewers are not allowed to be a chief entire-project officer or chief center-project officer of a proposed center project.

[2] If any of the below-listed elements are applicable to a document reviewer, s/he shall immediately inform the secretariat of such and withdraw from the review of the subject application.

- a) If s/he is a full- or part-time employee of the host institution (or is scheduled to become one), or if s/he has been employed by the host institution within the past three years
- b) If s/he will participate as a researcher in the subject center
- c) If s/he is a relative of the center's chief entire-project officer or chief center-project officer or has a comparable close relationship with one of them
- d) If s/he has a close mentor relationship with the center's chief entire-project officer or chief center-project officer
- e) If s/he has, as a person affiliated with the host institution, contributed to the conceptualization process of the subject center project
- f) If s/he is scheduled to be a member of an evaluation committee established within the subject center
- g) If s/he is engaged in joint research with a researcher who will participate in the subject center or has been so engaged within the last three years (e.g., carrying out a joint research project, co-authoring a research paper, or closely affiliated as a member of the same research group.)
- h) If s/he would stand to gain something from the selection or non-selection of the subject project, or is in a position of opposition or competition vis-à-vis the project
- i) If s/he has any other reason that would make it difficult to conduct a neutral and fair evaluation.

2. Document Reviewer Selection Process

- (1) Reviewers selected from the viewpoint of system reforms
(Selection process should finish before application deadline.)

From among the persons meeting the criteria stipulated in section 1. (1) above, the secretariat shall select six Japanese reviewers and six alternates as candidates and prepare a list of them.

It shall forward the list to each member of the Committee for comments, based upon which the Committee chair shall finalize the list of candidates. Then, each candidate will be sent an invitation to participate as a document reviewer. Those who give informal consent will be chosen as the reviewers. (If candidates should decline the invitation, alternates shall be invited in order listed.) The finalized list of reviewers shall be sent to all the committee members.

- (2) Reviewers selected from the viewpoint of research content

Based on information provided by applicants in their Pre-Application Registration Forms (e.g., fields, key words, project summary), five candidates (of whom 1-3 from overseas) meeting the criteria stipulated in the section 1. (1) above shall be chosen and invited to participate as document reviewers by the secretariat, which shall list those who have given their informal consent and forward the list to each member of the Committee for comments and final selection by the Committee chair.

In both the above cases, an explanation of the program is to be provided to the selected reviewers to ensure that they fully understand the purpose of the program.

Foreign reviewers should have a good command of English. Japanese researchers may be counted among the overseas reviewers if they are currently engaged in research activities at an overseas university or research institute and possess abundant experience in positions at overseas universities or other related organizations.

3. Document Review Implementation

The reviewers selected based on the criteria stipulated in section 2 above shall be sent a set of application documents, and shall conduct document reviews based on them.

Each application shall be reviewed by 11 reviewers: about 5 (including 1-3 from overseas) reviewers selected from the viewpoint of research content and about 6 selected from the viewpoint of system reform.

If any of the reviewers report a conflict of interest, another reviewer will not be appointed to take his/her place.

As a rule, no limit is set on how many applications one reviewer may handle. In the case of the system reviewers, to ensure uniformity the same six Japanese reviewers should review all the applications, in principle.