Report on WPI Program in FY2009
by
Program Committee
and
Site-Visit Teams

July 2010

The goals of the WPI program are ambitious; in addition to top-notch science, we requested to make breakthroughs in the existing disciplines and to reform traditional research systems, including internationalization.

The 5 WPI centers have been reviewed for their scientific achievement and implementation as WPI Research Centers in FY2009 by the Program Committee as well as by the site-visit teams.

We were pleased to learn that the 5WPI centers are at the highest level in their research and running on track to becoming world top-level institutes in the not distant future. Among the 5 WPI centers, IPMU, IFReC and MANA have made sound progress toward achieving the goals of WPI program, and can be looked upon as leading models for WPI research centers. On the other hand, the Committee found that further improvements are required for AIMR and iCeMS

to meet the WPI program goals, including overall strategy, leadership of their directors, and global visibility of their centers. We expect all the centers to further their efforts in creating genuine top world–level research center in Japan.

The high performance of WPI program is evident in the replies to the questionnaire survey, in which most of the WPI centers were well recognized among the science community and highly reputed by scientists even at this point of less than 2 years after their launching.

The Program Committee also discussed criteria and possible outcomes of the interim evaluation, which will be held in the summer-fall period of 2011.

Despite the severe budget-cutting suggestions made in the public hearings held in November 2009, the establishment of an additional WPI center in the field of "green" environment was approved in the government's FY2010 budget, which we very much appreciate.

A. Outline of WPI Program

In FY2007, the Ministry of Education, Culture, Sports, Science and Technology (MEXT) initiated the WPI Program (World Premier International Research Center Initiative), a highly challenging and long-term program to support the establishment of world-leading research centers.

The WPI Program aims ambitiously at creating globally visible and internationally opened top-world research centers in Japan, in which the world's finest brains gather, outstanding research results are generated, and talented young researchers are fostered. WPI research centers are expected to be highly innovative in both their concepts and practices.

Following four aspects are essential to being a WPI center.

- Top quality of science
- Internationalization
- Breakthroughs by fusion studies
- Reform of research systems

In October 2007, MEXT selected the following five research centers to be funded under the WPI Program:

Advanced Institute for Materials Research (**AIMR**), Tohoku University
Institute for the Physics and Mathematics of the Universe (**IPMU**), The University of Tokyo
Institute for Integrated Cell-Material Sciences (**iCeMS**), Kyoto University
Immunology Frontier Research Center (**IFReC**), Osaka University
International Center for Materials Nanoarchitectonics (**MANA**), National Institute for Materials Science (NIMS)

These WPI centers will be supported for a period of 10 years if they meet the above four requirements. This support may possibly be extended for another 5 years for projects with outstanding outcomes. An interim evaluation of these 5 WPI centers will be carried out five years after their launching, which will be in FY2011.

B. Major Events in FY2009

1. Public hearings

As a result of general election in August 2009, the Democratic Party of Japan (DPJ) won a majority in Lower House and formed a government that replaced the Liberal Democratic Party (LDP), which had governed Japan over a long period.

The Government Revitalization Unit reviewed existing policies and programs. Public hearings were conducted by committees composed of politicians, some specialists and citizens, which recommended termination or reduction of some funded programs. The magazine "Nature" reported these actions under the titles of "Japanese science faces deep cut" and "democratic fallacy" (see, http://www.nature.com/news/2009/091118/full/462258a.html ; http://www.nature.com/nature/journal/v462/n7272/full/462389a.html)

The Public hearings recommended a significant reduction in the WPI budget. However, thanks to a strong rally of scientists, including Nobel laureates, journalists and citizens, the science budget was finally only cut by a small amount (3-8 %) in the FY2010 budget. The WPI budget for the current 5 WPI centers was reduced by 3%, leaving 1.35 billion yen (approximately 15 million US$) per center. The total WPI budget was increased by 2%, making it possible to add a new WPI center specific to "green" environment issues. (see Footnote)

This affair reminded us of the importance of outreach activities. Indeed, all of the 5 WPI centers had been reaching out to public and society by various means; for example, science cafés, lectures for high school students, and publications, which resulted in a chorus of people's voices sent to the government during this science crisis.

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Footnote: As the new WPI center, Carbon-neutral energy Research Institute, Kyushu University, was selected in July 2010. (see http://www.jsps.go.jp/english/e-toplevel/03_results.html)

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2. Supplemental budget

To gain relief from the economic crisis that occurred in 2008, the previous LDP government approved a supplemental stimulus budget, which includes 2 billion yen (approximately 22 million US$) per WPI center for building facilities. This budget was further approved by the new DPJ government, allowing the new facilities described below to be built in the WPI centers.

In addition, a large science budget was provided for innovation-oriented research, which covers 30 research subjects on an average of 3 billion yen each (approximately 33 million US$) for 5 years. From the WPI centers, 5 researchers were selected for this grant; Dr. Esashi, PI of AIMR; Dr. Murayama, Center director of IPMU; Dr. Yamanaka, PI of iCeMS; and Dr. Akira, Center director of IFReC.

3. Facilities

This year, all 5 WPI centers established facilities that did not exist when the program was initiated in October 2007. Most of the PIs at AIMR, IPMU, IFReC and MANA are now able to work under one roof in their respective centers. Because of space limitations on campus, iCeMS is separated into 3 buildings, of which one for CiRA (Center for iPS Cell Research and Application) was opened in April 2010. The new facility for IPMU is unique in its concept and design, having a large space for communication and collaboration among physicists and mathematicians.

Using the support in the stimulus budget, all 5 WPI centers are now building or planning to build another facility.

4. Questionnaire survey

A questionnaire survey was carried out in July-September 2009 to examine whether each WPI center is becoming a “globally visible” center and how they are evaluated within the science community. For each center, more than 1000 scientists who published paper(s) in top-ranked journals and 30 leading scientists were selected as respondents. The response rate was 32.4% on average, varying from 24.7 to 39.0% among centers. Major results were as follows:

- Among researchers, half (51.7%) recognized the WPI program, either by the WPI center's name, the name of center director, its scientific activities, or the WPI program itself.
- Among leading scientists, a majority (78.7%) recognized the WPI program by the above indices, though a large variation was found among the centers.
- Almost half (44%) of the researchers evaluated the science levels of the WPI centers as “outstanding”.
- A majority of the researchers (62.4%) expressed interest in becoming a member of a WPI

center, including a dual appointment.

- A majority of the researchers (69.8%) said that they may recommend their students or colleagues to become a member of a WPI center, including by a dual appointment.

(see for details; http://www.jsps.go.jp/english/e-toplevel/08_followup.html)

C. Site Visits

Site visits to the 5 WPI centers were conducted for 2 days in January-February 2010 by the PD, PO, international working group, MEXT and JSPS officials. The schedule was the same as in FY2008 except for presentations by 9 PIs, instead of 6 PIs in the previous year. The team members' comments are shown below in italics after the solid dots (●).

We were pleased to learn that most of the comments included in the FY2008 reports were acted upon seriously and positively.

The PD, POs and members of international working groups are listed in the URL (http://www.jsps.go.jp/english/e-toplevel/08_followup.html).

D. Program Committee Meeting

A Program Committee meeting was conducted on July 14, 2010, by the members of Program Committee with the participation of the PD, POs and representatives of MEXT and JSPS. The Committee discussed the criteria and possible outcomes of the interim evaluation, which will be held in the summer-fall period of 2011. The evaluation criteria, approved by the Program Committee in March 2009, are as follows:

1) The degree to which the WPI centers are recognized within the scientific community.
2) The four key elements to being a WPI center specified above.

Based on the results of the interim evaluation, the Program Committee may make stringent recommendations to the WPI centers for the purpose providing stronger guidance for the implementation of their projects. These may include the following changes with regard to the WPI centers: center director, center's name, research concepts, research objectives, and target fields.
For further details, refer to the attached document.

The Program Committee also discussed the relevance of oversea satellites from the viewpoints of their objectives and conditions. For further details, refer to the attached document.

The Program Committee pointed out the importance of outreach activities, through which the centers explain the significance of their research to public and society.

A hearing was conducted on the 5 WPI centers regarding their scientific achievements and project implementation as WPI Research Centers. The Committee members' comments are shown below in italics after the open dots (○).

Members of the Program Committee are listed in the URL (http://www.jsps.go.jp/english/e-toplevel/07_committee.html).

E. Summary of Site Visits and Follow-up

AIMR, Tohoku University:

- *; comments by the site-visit team*
- ○ *; comments by the Program Committee members*

1. Achievement of science

- *The science ongoing at AIMR is for the most part of the highest quality. All the groups are carrying out outstanding work in their respective fields and generally this is well supported by their high quality publications and awards.*
- *Truly AIMR proper achievement is not so visible, although each PI exhibits high research activities.*
- *The research activity of NanoChemBio should be reinforced. Its future direction is also unclear. There is limited biological research and expertise within AIMR.*
- *It is time to set a long-term (next 5 or 10 years) strategy to establish AIMR firmly as a standard bearer of a new material science. AIMR should be distinguishable from Institute for Materials Research (Kinken) and also from MANA.*
- ○ *Scientific results at top level are achieved and recognized by citations and awards but it is difficult to see a program for the new Institute.*
- ○ *The progress is reasonable, but may not be consistent with the aim of WPI. This WPI serves as the means to change and open-up the research institutions and the university research.*
- ○ *It is good science but a WPI Center is more than that.*
- ○ *It will be very important to define more clearly the Mission of the Institute, a road map toward innovative materials and plans to benefit from fusion.*
- ○ *The field of soft material is still to be strengthened.*

2. Implementation as a WPI Center

- *Compared to FY2008, AIMR has made every effort to construct good environment for fusion research. However more collaborative research should systematically be organized.*

- *In FY2008, the Program Committee expressed concern regarding participation of the president of host institution as a PI, because of inherent conflict of interests. This problem was solved by his movement to the international advisory board.*
- *A new administrative director joined from UNESCO. Care for administrative affairs has been much improved.*
- *Attention to diversity in both nationality and gender should be made for the truly success and internationalization of the Institute.*
- *Policies and strategies to establish international "satellites" are not clear.*
- *Number of female investigators in leadership positions is too low.*

○ *The leadership has taken several steps to improve some issues, including renaming areas, and introducing measures to encourage independence among young researchers. However a much more aggressive approach will be required to achieve the goals of the WPI program.*

○ *The center does not appear to have had concrete transformative effects on the host institution.*

○ *Recruiting of foreign researchers will require a strong initiative to implant an expectation of independent research among the young PIs. Without that, there is little chance of attaining an international atmosphere.*

○ *Needs biosciences. Needs diversity in young, foreign, female and other scientists. Much too narrow in focus.*

○ *The management seems to be very poor. A big improvement is necessary.*

3. Points that need improvement:

Based on the above comments, the following points should be considered in working to meet the WPI program objectives:

1. Clear mission statement and roadmap toward creating new material science.
2. Reinforcement of NanoChemBio or soft-material research.
3. Strategy for establishing oversea satellites.
4. Improvement in the leadership of the center director.

IPMU, University of Tokyo

- *; comments by the site-visit team*

○ *; comments by the Program Committee members*

1. Achievement of science

- *IPMU's experimental/observational programs contain some elements that are indisputably world-leading and high-visibility science. However, these programs rely on successful*

collaborations with outside institutions.

- *Software preparation for data processing, calibration and science analysis is far behind its competitor.*
- *The quality of science underway in the theoretical fields is in general of very high quality.*
  - *Very great progress toward the goals of IPMU: Scientific accomplishments, globalization, interdisciplinary research, and system renovation are well made in a short period of time.*
  - *There has been remarkable progress in the past 3 years, due to outstanding leadership of the director. Visibility of IPMU in the world is highly evaluated.*
  - *A new culture has already been established, and PI and researchers now take the lead.*
  - *It appears that the theoretical work and the collaborative work between theory and experiment do not yet show the same level of accomplishment as the experimental side.*

2. Implementation as a WPI Center

- *IPMU has made every effort to stimulate "fusion" among different disciplines by hosting "Tea time", "Focus week", and the "Two hour lectures" events. A two hour lecture consists of one hour for non-experts, a break, and another hour of lecturing for experts.*
- *All on-site PIs are very active in inviting researchers from abroad. These efforts make IPMU more visible as an institute where world class researchers gather.*
- *The total number of papers does not seem particularly high for 102 scientific members. It will be essential to have some further statistical evidence (e.g. citations) which can be quantitatively compared with that of other leading institutes.*
- *The web pages for mathematics in IPMU are not very stimulating. The descriptions in these pages are too general or too elementary, and there are no points that are particularly related to the mathematicians at IPMU.*
- *IPMU held a workshop bringing together condensed matter theorists and string theorists.*
- *Since September 2009, Dr. Murayama had a joint appointment with IPMU and Berkeley, where IPMU satellite was established. The site visit team will carefully follow up his continuous performance.*
- *Thanks to its excellent outreach activity, many voices of citizens were sent to "public comments" of MEXT on the occasion of science crisis by public hearing.*
- *The University of Tokyo has announced creation of a new Advanced Institutes, using IPMU as a role model. This is a major step towards achieving one of the WPI goals. It also solves many of the problems, including tenured appointments. We wholeheartedly congratulate UT for its bold decision.*
- *With the completion of the magnificent new building, IPMU is well positioned to sponsor long term visitor programs such as those in Luminy in France or Aspen in the US.*

- *The questionnaire survey indicated that IPMU is highly visible and highly evaluated for the quality of its research.*
- *IPMU gave great evidence that it is on the way to becoming a true world center for this interdisciplinary area of science.*
- *It appears the extraordinary goals of WPI are in reach for IPMU, but will require continued energetic efforts.*
- *IPMU becomes also a model for reforming Tokyo University.*
- *The joint appointment of Dr. Murayama between University of Tokyo and University of California is a good solution.*
- *Real issue should be increasing graduate students. This is closely related to acceptance of ken-nin from existing graduate schools with relatively low duty, which is requested by regulation of related universities.*
- *The number of Japanese researchers should be increased because we need to encourage young students to engage in more basic science and math.*
- *There are also some issues such as pensions and gender balance that require continued attention.*
- *The structure of building is very interesting for promoting the fusion of math people, physicists and astronomers.*

3. Points that need improvement:

Based on the above comments, the following points should be considered in working to meet the WPI program objectives:

1. Continuous leadership of the center director under double appointment with University of Tokyo and UC-Berkeley.
2. Fruitful collaboration between theorists and experimentalists.
3. Nourishment of young Japanese researchers.
4. Qualitative analysis of publications.
5. Early establishment of IPMU as a new “Advanced Institute” of University of Tokyo and rendering of tenured positions.

iCeMS, Kyoto University

- *; comments by the site-visit team*
- *; comments by the Program Committee members*

1. Achievement of science

- *The quality of science is very high and showed significant improvement over the last year.*

- *Studies of chemical biology are nicely integrated into ES/iPS studies.*
- *iPS cells have received an international robust reputation.*
- *Synthetic porous architectures have a potential to open a new field of biological sciences, but it seems still far way.*

○ *Basic quality of science is high. Focus still seems to be on the material and cell properties, with technology development only being a tool to achieve these aims. Novel interdisciplinary research aims do not appear to be emphasized.*

○ *Since Yamanaka Project has made a major breakthrough and advances, how to coordinate iCeMS and CiRA at Kyoto Univ., is a critical decision matter at this juncture.*

○ *iCeMS needs to find a new core focus, which may or may not be connected with iPS.*

2. Implementation as a WPI Center

- *There is significant improvement in fusion studies compared to the last year's site visit.*
- *Although CiRA became an independent institute of Kyoto University since this April, it is affiliated to iCeMS, in which Dr. Yamanaka and six CiRA researchers are engaged in basic studies of iPS cells.*
- *The recent questionnaire survey indicated that iCeMS is not so well recognized in world science community compared to the rest of WPI centers. This may be, at least in a part, due to ambiguity of the term "meso-scale control".*
- *Site visit team showed great concern on the reliability of "meso-scale control" as a mission of iCeMS.*
- *Although the meso-scale in biology is not well defined, each meso-scale system in a cell has been considerably well investigated, e.g. membrane domains and transcription unit. Thus, the investigation of the meso-scale systems is inevitable for the understanding of a cell.*
- *However, there are potential risks in such a study: first, because of its unpopularity, the institute has to struggle to establish its brand; second, because of its diverse research areas, mission of the research is ambiguous and hardly focused. These potential risks will continue until the end of WPI term.*
- *Using this term begs the question: "What is so different about the meso from the nano-scale?" Meso studies will be eventually involved in nano-studies.*
- *We advise the leadership to consider writing a review article in a well circulated journal in order to suggest globally that the concept of "meso-control" be adopted for this length scale.*

○ *International visibility is to be enhanced.*

○ *The issue of the lack of awareness of the concept "meso-scale" is important to address.*

○ *Research on iPS cells should be more promoted, but the concept of meso-science in*

biology must be more clearly defined and promoted researches more systematically. At this moment, the concept is very vague.

- ○ *The public interest in iPS discovery and the complete absence of iCeMS recognition in the questionnaire survey is probably due to the previous relative position of CiRA inside iCeMS.*
- ○ *The creation of CiRA may be a challenge to the perception and indeed the mission of iCeMS.*

3. Points that need improvement:

Based on the above comments, the following points should be considered in working to meet the WPI program objectives:

1. Reappraisal of the basic concepts: "Meso-scale control" and integration of cell-material science.
2. Rewriting of mission statement and roadmap toward the goal of the center.
3. Fruitful collaboration between iCeMS and CiRA.
4. Improvement in the Leadership of the center director.
5. Increasing the center's international recognition.

IFReC, Osaka University

- ● *; comments by the site-visit team*
- ○ *; comments by the Program Committee members*

1. Achievement of science

- ● *Site visit team satisfied with progress of both scientific achievement and implementation as a WPI center.*
- ● *The science continues to be excellent, as indicated by a number of high-impact publications.*
- ● *A small group of international experts should be invited to evaluate the bioinformatics group.*
- ● *IFReC has made a successful effort to hold frequent, highly visible international symposia.*
- ○ *Top of the tree already. Hard to see how they will improve! Clearly by moving on from classical immunology. They do this at some level: bio informatics.*
- ○ *Excellent progress in keeping with WPI standards, as evidenced by high visibility publications and also major awards to researchers.*
- ○ *Very impressive set of international conferences: clearly building on the high visibility and reputation of Osaka immunology.*
- ○ *Still there is a long way to go to recognition as a "world premier" research institution, and the leaders must continue strenuous and creative efforts to stay on a good*

trajectory.

- ○ *Needs a big-vision multi-year strategic plan and a roadmap for how to achieve the big goals of the center.*

2. Implementation as a WPI Center

- ● *IFReC responded very positively and quickly to several of the suggestions and helped foster internationalization and fusion of the disciplines of immunology, imaging and informatics.*
- ● *IFReC should generate a more explicit roadmap, including a mission statement, milestones and indicators.*
- ● *Activity of IFReC is supported by efficient and strategic administration.*
- ● *The new building has provided a more cohesive environment, an opportunity for expansion and some modernization of facilities.*
- ● *IFReC needs to attract more female PIs.*
- ○ *Fusion between immunology and imaging has made progress, even if the differences will always remain (science against technology). The plan of University to establish a new Imaging center will increase the development of this technology and help the WPI.*
- ○ *Good to see increase in human resources expert in imaging. Still needs to include more support for the development of innovative imaging and informatics approaches in the strategic plan of the center, not just use existing techniques as tools.*
- ○ *If engineering people other than imaging-area have any kind of collaboration with the immunologists here who are really leaders in the world now, we can expect much more fruits from this project.*
- ○ *The top down decision making system and the strong support of the Osaka University is to be appreciated.*
- ○ *Steady progress has been made as expected of this program as WPI. Additional sources of funds such as from government competitive grants and from Kishimoto Foundation have been of great help.*
- ○ *Outreach activities should be more promoted.*

3. Points that need improvement:

Based on the above comments, the following points should be considered in working to meet the WPI program objectives:

1. Strategic plans toward making a breakthrough in classical immunology.
2. Strategic advancement of imaging and informatics to be integrated into immunology.
3. Promotion of outreach activities.

MANA, National Institute for Material Science

- *; comments by the site-visit team*
- *; comments by the Program Committee members*

1. Achievement of science

- *The quality of science in MANA has progressed remarkably in FY2009. Young scientists are also doing a high level of science.*
- *MANA has been successful in hiring outstanding/excellent PIs nationally and internationally and integrating excellent researches originally done at NIMS.*
- *Reinforcement of Nano-Bio field and design-based theoretical research is needed.*
- *Research agenda still seems modest, especially in Nano-Green and Nano-Bio fields.*
- *MANA built up an impressive network of 4 international and 3 domestic satellites and invited excellent international PIs.*
- *The activity of MANA in the past years is highly evaluated, but we expected more remarkable discovery from MANA.*
- *It appears to be good, strong research, but not exciting. MANA should find some grand challenge project or projects that will attract world attention.*
- *Strong science, but it seems to lack an exciting revolutionary core. The approach seems primarily evolutionary.*
- *MANA must develop totally new "tools" to develop new materials based on the new concept.*
- *The sincere efforts made by MANA, which is relatively small host organization with smaller amount of budget, are very successful.*
- *It is very impressive that this project has successfully achieved making a network circuit of inorganic neuromorphic devices.*

2. Implementation as a WPI Center

- *MANA has made outstanding progress toward gaining worldwide visibility.*
- *A high proportion (51.9%) of foreign researcher indicate that MANA has established itself as an internationally opened institute.*
- *Participation of Dr. Traversa (Professor of University of Rome) in a tenured position and his research group may deepen the impression that MANA is an internationally opened institute.*
- *The relation between NIMS and MANA is still unclear. Many PIs do not distinguish MANA from NIMS. If MANA is a center of excellence within NIMS and MANA cannot survive without the support of NIMS, one should not introduce an artificial separation but should discuss, for example, common investments in the infrastructure.*

- *Administrative support to foreign researchers is a role model for WPI centers.*
- *The leaders have undertaken aggressive measures to improve the research environment. The special grants to encourage fusion research, and the numerous university collaborations to bring graduate students to MANA are examples. With continued energetic leadership MANA appears to be on track to satisfy the WPI goals.*
- *A specific fund has been established to support young researchers in interdisciplinary proposals.*
- *International atmosphere has been attained.*
- *Progress toward broader recognition of MANA is evident: MANA is certainly attractive to achieve 51.9% of foreigners among its researchers, even better, 12% of female, 7 satellites (3 domestic and 4 international) with "firm commitments".*
- *Communication inside and outreach (News letter "Convergence") have been improved. A new building in 2012 will help to unite members in their scientific relations.*
- *It is expected to play significant role in reforming the practice of the whole Tsukuba science city.*

3. Points that need improvement:

Based on the above comments, the following points should be considered in working to meet the WPI program objectives:

1. Making clear the distinctiveness of science being pursued in MANA.
2. Needs for grand challenge to create new material science.
3. Reinforcement of nano–bio field.

Appendix 1

Interim Evaluation of
World Premier International Research Center Initiative

14 July 2010
WPI Program Committee

1. Schedule

- The interim evaluation will be carried out in the 5th year of the project.
- A questionnaire survey will be conducted during March-August 2011 for the five centers selected in FY 2007.
- Site visits will be conducted in the summer of FY 2011. Afterwards, the Program Committee will be held in the summer or fall to carry out the interim evaluation based on the results of the site visits. The site visit by the willing Program Committee members will precede this Committee for the members to have more hands on understanding of each WPI centers.

2. Interim Evaluation Criteria

The evaluation criteria, decided by the Program Committee in March FY2009, are as follows:

1) The degree to which the WPI centers are recognized within the scientific community will be assessed by conducting a questionnaire survey to authors whose papers/articles are published in internationally renowned scientific journals.
2) Four key components of each WPI project will be evaluated: science level, globalization of the institution, interdisciplinary research activities, and organizational reform. These components will be perspectives in annual follow-up reviews.

The interim evaluation will be done as a composite of these two criteria.

3. Expected Results of Interim Evaluation

In the evaluation, the Program Committee may state stringent recommendations to the WPI centers to render stronger guidance to their project. These may include the following changes with regard to the WPI centers: center director, center's name, targeted fields, research objectives, and the naming of targeted fields and/or research objectives.

4. Other

If deemed appropriate, PD and/or POs may be changed after the interim evaluation.

Aside from the Interim Evaluation, the Program Committee stressed the importance of outreach activities to the public, and encourages WPI centers to actively engage in such activities.

Regarding the Establishment of Overseas World Premier International Research Center Initiative (WPI) Satellites

14 July 2010
WPI Program Committee

At the last WPI Program Committee meeting, the issue of overseas satellites was raised, in particular whether researchers' activities at overseas satellites can be justified without coming to WPI centers in Japan. To follow up, the committee reconfirmed the objectives of establishing overseas satellites and set a clear understanding for their establishment.

1. Objectives for Establishing Satellites

The role expected for overseas satellites is to strengthen and complement the capability of WPI centers as a whole through mutual collaboration with foreign institutions and researcher exchange thereof. The satellites would provide a conduit for attracting excellent overseas researchers to the WPI centers and thus raise their "global visibility" within the international scientific community.

2. Basic Understanding for Establishing Satellites

Reflecting on the WPI objectives, the following points should be taken into consideration when establishing overseas satellites.

(1) An agreement should be concluded with the counterpart institutions, that stipulates the satellite's function within the WPI project. Various mutual collaboration modalities with the counterpart institutions, including financing, could be explored and articulated in these agreements.
(2) Intellectual property rights should be clearly articulated in the agreement above (e.g., results produced by an individual researcher; shared results produced by collaborative research).
(3) Regarding financial outlay to the satellites, it should be clearly shown that funds outlaid to satellites from the WPI grant do not exceed an amount accountable in line with the WPI objectives.
(4) The excellent researchers at the overseas satellite, who participate in the WPI project, should come to Japan to engage in research activities at the WPI centers as well.
(5) The satellites are expected to promote publicity of WPI.
(6) Result of collaboration such as numbers of joint papers and researcher exchange should be reported to the Program Committee annually.