

# World Premier International Research Center (WPI) Initiative Comments on FY2007 WPI Project Progress by Program Committee

Host Institution	Tohoku University	Host Institution Head	Akihisa Inoue
Research Center	Advanced Institute for Materials Research (AIMR)	Center Director	Yoshinori Yamamoto

## 1. Status of overall progress

- Despite the relatively short period of time since it started, the Advanced Institute for Materials Research(AIMR), Tohoku University, has succeeded in organizing four research teams, each of which has its own history, style, techniques and issues. AIMR aims to fuse five existing scientific fields (Chemistry, Material sciences, Electronics engineering and information sciences, Precision and mechanical engineering, and Physics). With a clear focus on internationalization, good progress is being made so far in introducing practices that enable scientists to focus on their research without being unduly burdened by administrative tasks. The motivation of newly joined members appears to be high and good scientific achievements can be expected. Also impressive are the center's initiatives on "applied research" oriented subjects. Efforts to establish a support system including infrastructure (spaces, buildings, administrative and support members) are progressing.

- The support system by the president of the host university, who is serving as one of the PIs (team head), is unique and is positively evaluated. The top-down management system adopted should be the right choice for a WPI type mission-oriented project. (Good university commitment is observed.)

- However, progress in their major task—using the five academic fields to establish an entirely new paradigm of interdisciplinary science—is proceeding slowly. This activity should be given priority over all other tasks of the WPI center.

The director is strongly recommended to take on the challenge of this mission by immediately starting up related activities and through daily communication with and guidance to the researchers.

- The center has gotten off to a good start; however, it does not appear to be trying to do anything fundamentally different from the way it has conducted research in the past. Its progress report contained very broad objectives; in general, however, the project needs to have concrete mid-term objectives by which to evaluate progress.

## 2. Points that need improvement

- 1 It is unclear how the fusion of the five sciences will be achieved. The director is recommended to state clearly the methodology to be used. Goals for innovation in material research have to be set at a high level.
- 2 The newly built Integration Laboratory should serve as a "melting pot" to create interdisciplinary sciences. In this regard, a maximum number of researchers from the four groups should work together in this building.
- 3 AIMR needs to give further consideration to how it can develop a new management system and a non-traditional administrative system. A more clearly defined system of salary/wage payment needs to be established along with systems for enabling independent work by young researchers and for reducing clerical tasks. A good and innovative management system needs to be created.
- 4 Little concerted effort is being paid to making AIMR more visible. The director is recommended to create a concrete communication strategy for disseminating information both in and outside Japan on the center's program, including newsletters, webpages and other media.
- 5 The organizational framework only allows decision-making by the highest level researchers. A channel needs to be put in place for young researchers to try new things. Similarly, platforms need to be created for young researchers to communicate with colleagues in the overseas satellites.

## 3. Others

In addition, the following are some opinions expressed by the program committee members.

- 1 Considering the 10-year term of the project, the director should make a steady effort to secure more foreign and female scientists and PIs.
- 2 Minimal overlapping with IMR in terms of research subjects, members and objectives would give the WPI center a more clearly defined presence.
- 3 As stated in the progress report, the president of the host university (who is one of four steering committee members and one of the PIs) should make maximum effort to secure the independence of the center's administration.
- 4 More contact and cooperation with other institutions is desirable.