August 17, 2013

The ILC site evaluation committee of Japan has assessed the two candidate sites based on technical and socio-environmental criteria and unanimously concluded as follows:

The Kitakami site is evaluated to be the best domestic candidate site for the ILC.

In addition, the committee strongly recommends the central campus of the Kitakami site to have a good environment for living and research and to be located near the Shinkansen line for convenient access to Sendai and Tokyo.

(Signatures)

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Forewords

Many people in both regions of the Sefuri and Kitakami sites have dedicated a large amount of effort and understanding to the international project - the ILC. They have provided us with the maximum support in preparing materials for the site evaluation. We would like to express our deepest gratitude for them.

In addition, the members of the technical and socio-environmental expert panels have provided us with intensive discussions and knowledge on wide range of fields in spite of their own heavy schedules. We are enormously indebted to them.

In the discussions of the committee on the routes of the accelerator and on the main campuses of the two sites, there appear numerous proper names such as concrete place names, and in order to carry through the scientific and academic evaluation also, we could not sufficiently inform interested parties about the interim status of the evaluation. We beg your understanding on this matter.

Main Issues

Both the Kitakami and Sefuri sites have very good geology that satisfies the minimum conditions for constructing the ILC. In addition, we have already received a wide range of supports based on sufficient understandings of the ILC as an international project. In each region, a future plan of development with the ILC at its core has been proposed, and one can hope for a co-prosperity of the ILC and the surrounding area. The two sites have been selected out of more than ten original candidate sites, and they have both been assessed to be good. The ILC site evaluation committee performed the final down selection process based on scientific and academic merits.

Both sites satisfy the minimum necessary criteria in both technical and socio-environmental terms. There are, however various factors to increase risk or cost. We have thus considered a variety of issues ranging from normally expected ones to those for which great difficulties are foreseen. The evaluation was conducted on the technical issues in constructing the accelerator itself and on the socio-environmental issues of the main campus and surrounding area according to the guideline described in a separate document.

For the evaluation, each region submitted two representative routes that are considered best and multiple candidate sites for the main campus. First, each route and main campus site was verified to satisfy the minimum necessary conditions. We have then evaluated each candidate in terms of the evaluation items in the list; namely, factors that can lead to large risks in actual construction and operation and in research and living, issues that can cause increase in cost or schedule, special technical merits, and conveniences in access and living. If a technical risk is

identified on a route, for example, we have investigated possibilities to avoid such risk by readjustment of the route.

The summaries of evaluations in the technical and socio-environmental issues are given below. More detailed descriptions are attached at the end of this document. (not included here.) Note that we have removed proper names that can lead to identification of narrow regions

Result of evaluations

Technical issues

In securing the straight line of 50 km length required by the international design team, the Kitakami site has a large edge over the Sefuri site in terms of technical aspects such as permit and authorization, risks in construction and operation, as well as schedule and cost.

In concrete terms, superiority for the Kitakami site is recognized in relative location of the route and large faults that are considered active or suspected to be active, constraints caused by man-made objects such as large dams and old mines, difficulties in underground usage, lengths of access tunnels constrained by terrains, and method of drainage of water which becomes critical when the electrical power is lost. Issues that could lead to particularly serious difficulties for the Sefuri site are that the route passes under or near a dam lake, and that the route passes under a city zone. Also, the lengths of access tunnels are longer for the Sefuri site than for the Kitakami site leading to a large merit for the latter in terms of cost, schedule, and drainage.

The issues specific to the Kitakami site are earthquake, displacement motion after the Great East Japan Earthquake, and effects of snowfall. As for earthquake, the same earthquake-safe design for the worst case imaginable is required anywhere in Japan. This is an issue to be paid attention in the final international design. Since the Kitakami site is far from expected epicenters and since the tremor is significantly damped underground, however, the expected tremor is well within a range for which earthquake-safe design is possible. The displacement motion of ground after the Great East Japan Earthquake is a slow movement of a very wide area of plate, and thus no serious trouble is expected for the control and operation of equipments.

As for the snowfall, the site is not a region known for particularly heavy snow, and no great problems in construction are foreseen.

Socio-environmental issues

In socio-environmental aspects, while both the Kitakami and Sefuri sites have merits and demerits, no large risks are found that could cause serious problem for siting.

Regarding the socio-environmental infrastructures, one of the two campus candidates proposed for the Sefuri site is particularly excellent in convenience of access and social life. On the other hand, the Kitakami site has merits in expandability of the main campus and conveniences of Shinkansen as well as artery roads alongside large commercial establishments.

As for accepting foreigners, the region around the city of Fukuoka is one of the most well equipped in Japan and in no way inferior to Tokyo. Even in Tsukuba or Kashiwa in the suburbs of Tokyo, however, support for foreigners who stay for a long period of time is far from sufficient. In addition, the international schools in Fukuoka or in Sendai do not have enough capacity. Thus, in each region, a great progress in internationalization should still be made in partnership with local efforts.

In socio-environmental issues, convenience and cost of living tend not to go together. In each region, it is difficult to obtain expandability to surrounding area and natural environment and at the same time secure convenience in life and cultural facilities. Except for one candidate campus site for which access from the living area is problematic, each of the Kitakami and Sefuri sites should be able to realize a sufficiently good research environment by solving problems one by one.

Based on the above assessments, we have unanimously reached the conclusion as stated.

Reference: Scores

As explained in the section 'guideline for evalutaion' (a separate document), we have performed numerical evaluations on a trial basis. The results are shown below for reference.

* The numbers reflects the evaluation after satisfying minimum requirements.
* Used the AHP method.

Technical evaluation (total scores)

	score (absolute)	score (relative)
Kitakami	68	63
Sefuri	46	37

Socio-environmental evaluation (total scores)

	score (absolute)
Kitakami campus (A)	60
Kitakami campus (B)	51
Sefuri campus (A)	63
Sefuri campus (B)	55