Introduction

Hitoshi Yamamoto, 15-Mar-2013, ILC detector monthly meeting, KEK

Detector

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International Science Innovation Centers (MEXT, \$100M max each program)

- A new industry alliance center to create earth cleaner market to protect the environment'
 - One of 15 programs approved (March 7, 2013)
 - Using super-conducting accelerator and quantum beam technology, advance the technologies and businesses to 'cleanse the earth' and expand the market.
 - Proponent: KEK
 - Co-proponents: , Mitsubishi Heavy Industries, Hitachi, Toshiba, Mitsubishi Electronics, Kyocera

Press conference by the MEXT minister Shimomura Jan 18, 2013



'(On ILC) We would like to consider the plan for the near future, while as the government actively negotiating with relevant countries in the first half of this year ... we are now studying the legal framework.'

Policy Speech by PM Abe (Japanese version of 'State of the Union') Feb 28, 2013

 'Japan is driving global innovation in cutting-edge areas, including among others the world's first production test of marine methane hydrate, a globally unparalleled rocket launch success rate, and our attempts to develop the most advanced accelerator technology in the world.'



PM Abe at the 83rd session of Diet

Q&As at the Diet Mar 4, 2013

 Q: Mr. Ohata's Question on the 'Strategy for Growth 'Establishing science&technology and intellectual property rights has greatly contributed to the progress of Japan in the past. What is your thought on the basic science&technology including the linear collider?'

PM Abe's answer on the ILC

'We will pull along the innovations through accelerator technologies that are at the global state-of-the-art. The ILC is part of it and it is a project that inspires great dreams. On the other hand, it requires a large amount of budget.'

'As the government, we will proceed checking the progress of the international design activities at researchers' level .'

(There have been many answers in the Diet by Ministers in the past)

Activities of the new Federation (Diet)

- General meetings
 - Feb 1. 2013 : re-establishing the federation

Huge attendance:

45 diet members and 25 proxies + researchers/companies

- Feb 26, 2013 : re-organization
- March 25, 2013 : invite Lyn Evans (LC collaboration director).
- Apr : two general meetings planned
- Mini-lecture series
 - eg: March 13, by Sakue Yamada etc.
- Visit Washington DC
 - Apr 29-May 1, 2013
 - goal : enlarge US-Japan collaboration on the ILC
 - Joint symposium US-Japan w/industries planned

Japanese Diet Members' Letter to DOE Office of Science (Oct 10, 2012)

Dear Dr. Brinkman,

As members of the Diet and also leading figures of the supporting group for hosting the International Linear Collider (ILC) in Japan, we are writing this letter to express our deep desire to invoke a much closer cooperation in accelerator driven basic science, especially in High Energy Physics (HEP) Projects between Japan and the US.

The ILC, whose construction is strongly supported by the recent Higgs-like boson discovery at the LHC, represents the future frontier of particle physics with the fundamental goal of making the next step forward in our knowledge of the Universe. The most delicate undertaking of all, however, is to create the multinational conditions to build the ILC as a global effort, which should also be internationally structured. We consider the process to realize this new international enterprise would represent a successful model of future global projects in all fields of science, technology and economics.

Japanese Prime Minister Noda made positive references to the ILC in December 2011, just after the first preliminary sightings of the new boson were announced from CERN. Presently in Japan, there is a talk of extra funds, because the new

Japanese Diet Members' Letter to DOE Office of Science - signed by:

Sincerely yours,

parwn

Kaoru Yosano A member of the House of Representatives Previous Ministers of Finance, Education, International Trade and Industry



A member of the House of Representatives Previous Chief Cabinet Secretary and Minister of Education, Culture, Sports, Science and Technology

Ryu Shionoya A member of the House of Representatives Previous Minister of Education, Culture, Sports, Science and Technology

Professor of University of Tokyo Previous Minister of International Affairs and Communications

Reply by the director of Office of Science

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Should the Japanese government desire to commence such discussions on an international linear collider, the US Department of Energy Office of Science will consider participating, but we note that this process will require a through understanding of both the domestic scientific priorities in each major region

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The U.S. HEP community is working to consider the options as part of a community planning process culminating in a workshop planned for next summer. The community's physics studies and simulations are necessary to compare the scientific reach of the various options. Once these studies and the community input are complete, we will be in a better position to evaluate future U.S. priorities for the HEP program.

US HEP strategy planning

A multistep process

Each step will inform and prepare for the next

HEPAP Facilities subpanel is 1st step

Note well-defined scope: >100M\$ & 10 years No rank ordering by HEP NOT intended to preclude additional ideas that emerge in subsequent steps

DPF-led community planning ("Snowmass") process is 2nd step.

Capable of more detailed studies Culminates in July 20 – August 10 workshop Wider portfolio of activities ~20 year time horizon

HEPAP Project prioritization subpanel ('P5') is 3rd step

Expected after Snowmass process complete Work with input from Snowmass + budgetary input from DOE/NSF Form strategic plan in various scenarios HEPAP/P5 is one of few official paths for agencies to gather community input.

HEPAP Facilities Subpanel: Energy Frontier - preliminary conclusion -

US has made subtantial contributions to detector and accelerator development through the global effort

Should an agreement be reached, the US particle physics community would be eager to participate in both the accelerator and detector construction

HEPAP Facilities Subpanel: Energy Frontier

Preliminary conclusion

Conclusions

- Measuring Higgs properties and searching for Beyond the Standard Model effects are of primary scientific significance
- The LHC accelerator and detector upgrades and the 500 GeV ILC in Japan can address these questions in complementary fashions and are absolutely central to progress in high energy physics
 - The LHC accelerator and detector upgrades build on major US contributions to design, construction, operation, and physics at the LHC
 - The Japanese particle physics community desire to host a 500 GeV ILC offers a unique opportunity

Regional Organizations : Kyushu

- Kyushu
 - 'Association of Advanced Fundamental Science and Future Accelerators'
 - Established in 2007
 - Local governments, companies and universities
 - 'Kyushu and Saga Universities Promoting ILC'
 - Established in 2007
 - 'ILC-Asia-Kyushu Conference Promoting ILC'
 <u>Established in 2013 Feb</u>14
 - 'City of Karatsu Conference Promoting ILC'
 Established in 2013 Feb 19
 - City of Saga Conference Promoting ILC'
 - Established in 2013 Feb 26

City of Karatsu





City of Saga

Regional Organizations : Tohoku

- 'Tohoku Conference for the Promotion of the ILC'
 - Local governments, companies and universities
 - Cities of Oshu, Ichinoseki, Kesennuma joined the Tohoku Conference for the Promotion of the ILC
 - 2013 Mar 6
 - New members joining rapidly now!
- 'Tohoku University Council for the Promotion of the ILC'
 - Established in 2012
- 'Federation of Assembly Members Promoting the ILC'
 - Iwate Prefecture : established 2013 Mar 13
 - Miyagi Prefecture : to be established at next assembly

~200 newspaper articles on ILC this year by major journals in Iwate and Miyagi

Iwate Assembly Members visiting KEK



European Strategy

draft is released, to be approved by the CERN council

There is a strong scientific case for an electron-positron collider, complementary to the LHC, that can study the properties of the Higgs boson and other particles with unprecedented precision and whose energy can be upgraded. The Technical Design Report of the International Linear Collider (ILC) has been completed, with large European participation. The initiative from the Japanese particle physics community to host the ILC in Japan is most welcome, and European groups are eager to participate. Europe looks forward to a proposal from Japan to discuss a possible participation.