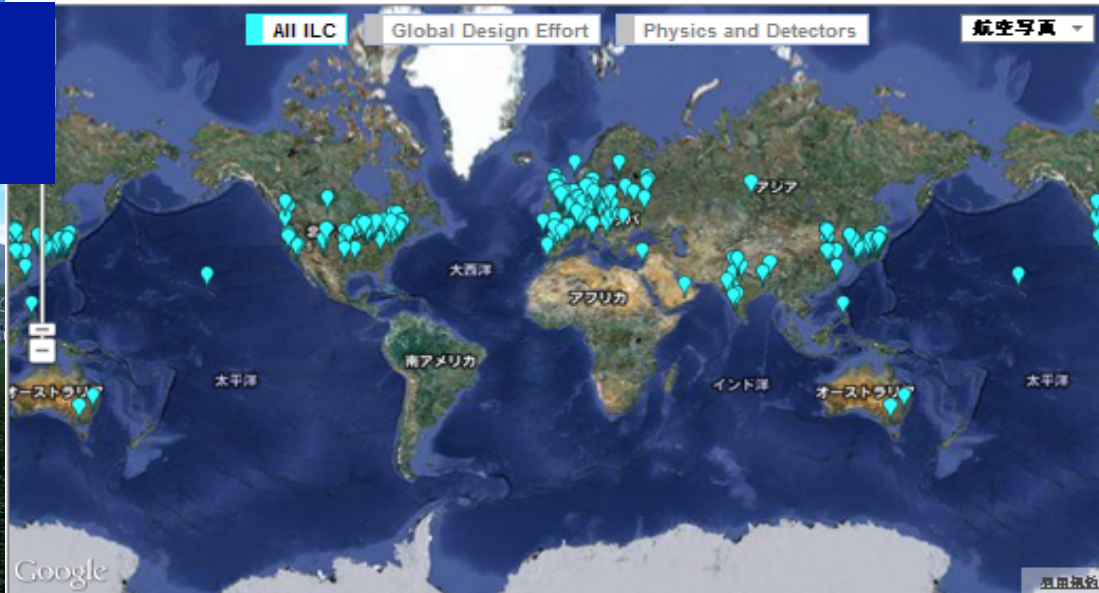
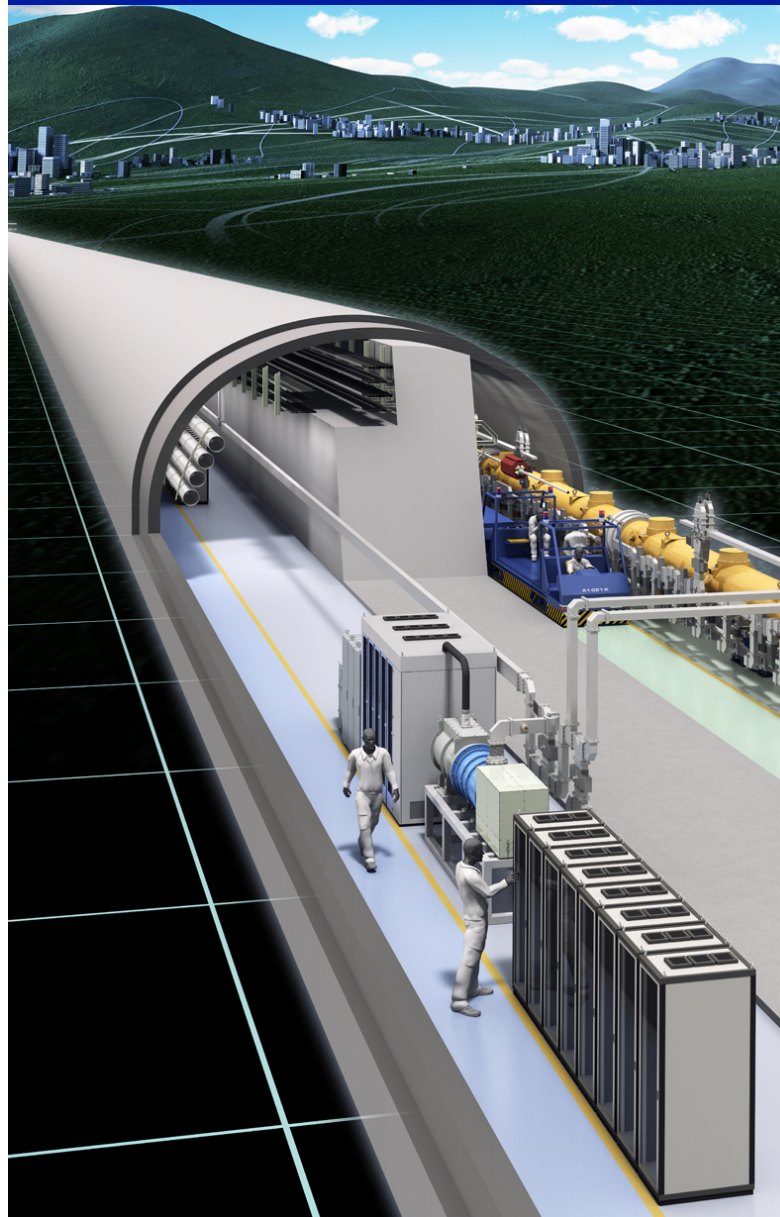


ILC Status



Satoru Yamashita
ICEPP, Univ. of Tokyo
Feb. 11, 2015
HPNP2015 Toyama

**In JFY2013, enormous progress was made.
Starting in JFY2014, a new phase begins:
Project review by Government/MEXT, a steady and
timely development**

**Government reviews to materialize
for the government's decision on
whether or not to give the “green light (next step to go)”**

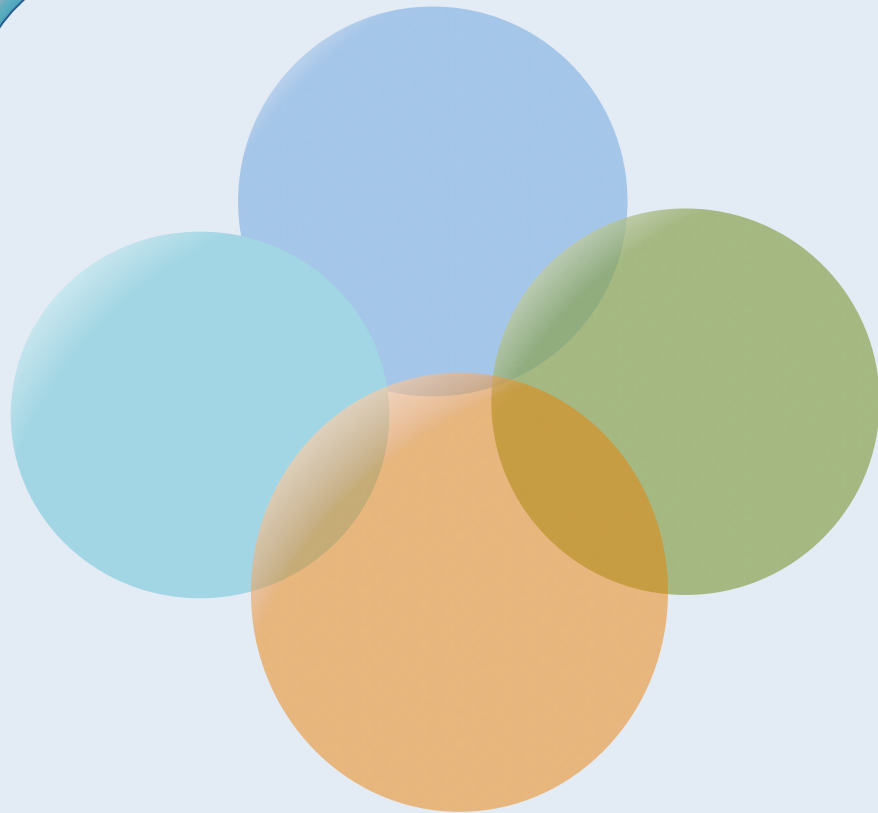
**TIME FRAME: JFY 2014-2015
(April 2014 – March 2016)**

**Japanese Government and Federation of Diet Members are
firmly leading the project.**

**ONGOING: Domestic discussions and talks with
U.S. and European Governments.**

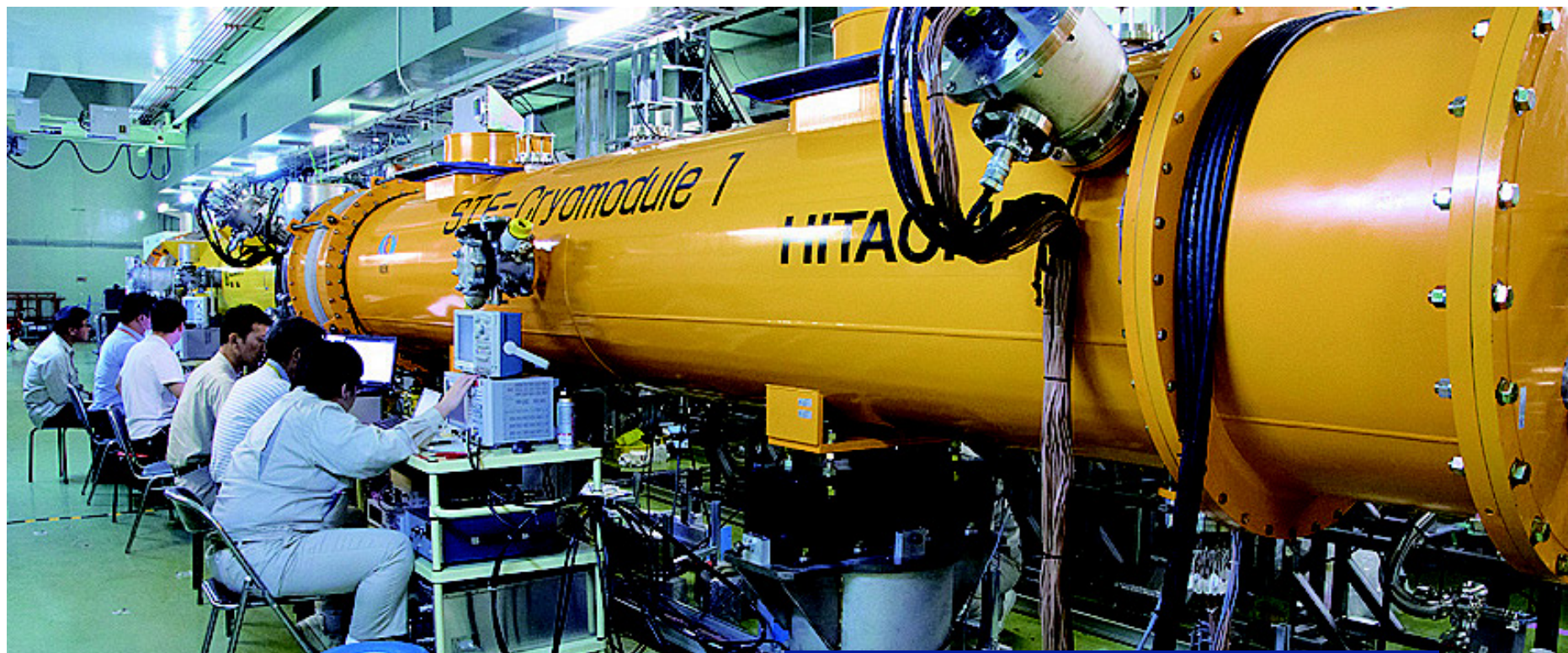
Next key steps:

- ➔ Advancing review process within other governments.**
- ➔ Showing clear support from physicists around the world.**



- ▶ *New frameworks*
 - ▶ *New visions*
 - ▶ *New challenges*

International Project



ILC Technical Design Report Completed
(December 2012)

Lyn Evans' Courtesy visit to
PM Shinzo Abe (March 2013)



Researchers in the world

- European Strategy (EU)
- P5 report (US)
- ACFA statements (Asia)
- ICFA statements
 - LHC upgrade (approved@CERN)
 - Neutrino (US, Japan)
 - ILC (global)
 - R&D for future: FCC

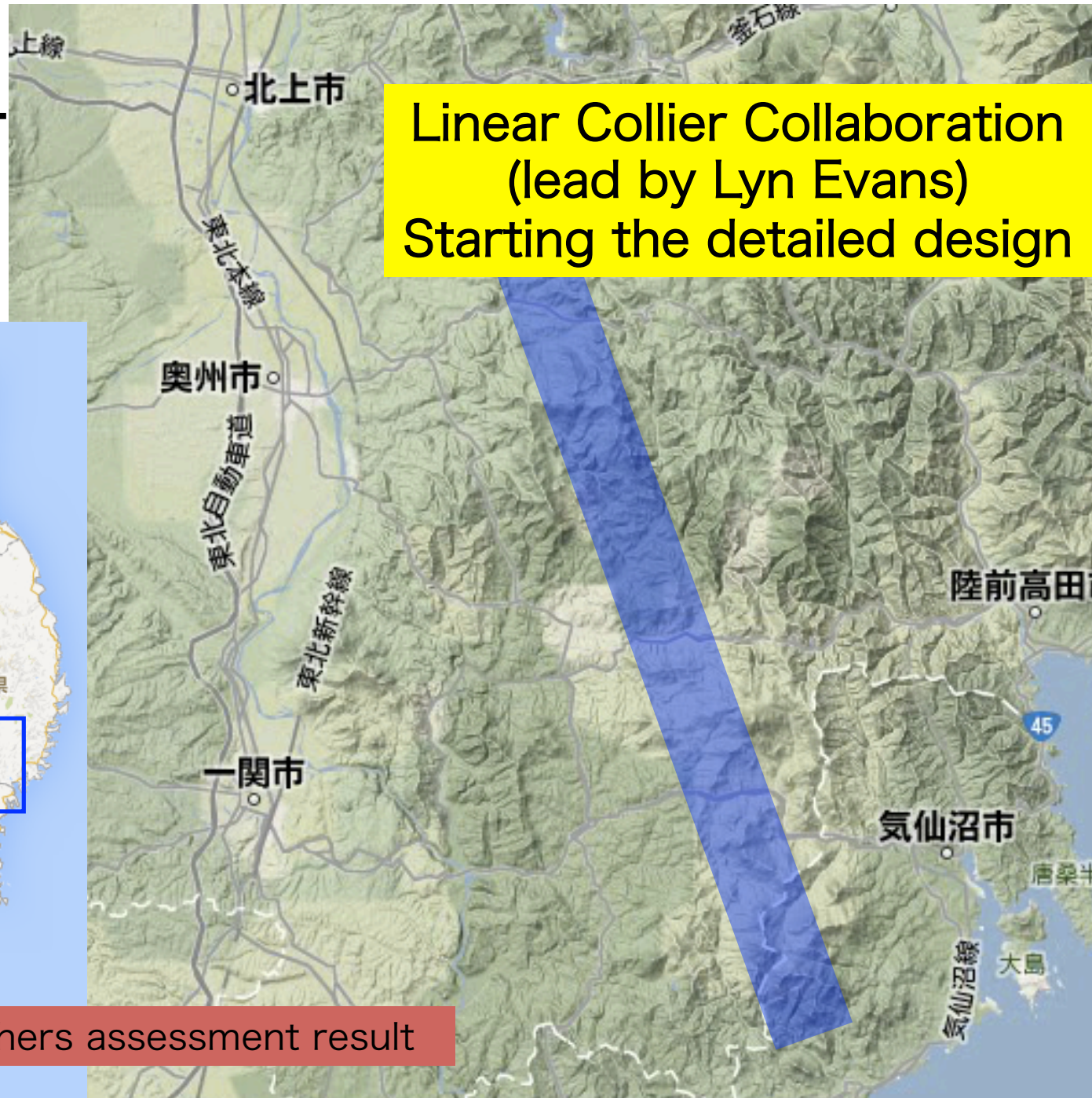
4

Kitakami

Linear Collier Collaboration
(lead by Lyn Evans)
Starting the detailed design



Researchers assessment result



Necessary Steps

1. **Industry/Science:** Technology choice (2003)
→ International concept and international proposal
(2004-2013)
2. **Government:** official reviews and investigations
(Now)
3. **Government-to-government:** discussions to form
frameworks (Now)
4. A **decision** to proceed by the government
→ Negotiations for **sharing**
5. International agreement → **International approval**

Report by Science Council of Japan

(Official English translation)

http://www.scj.go.jp/ja/info/kohyo/pdf/Report%20on%20ILC_Executive%20Summary.pdf

...

The Committee suggests that the government of Japan should (1) secure the budget required for the investigation of various issues to determine the possibility of hosting the ILC, and

...

In parallel,

, and to _____

_____.

MEXT Ministry of Education, Culture, Sports, Science and Technology ILC Taskforce (Reorganized November 2013)

Chair: MEXT Vice-Minister

Officials: Mr. Sadayuki Tsuchiya (MEXT Deputy Minister), related offices,
Mr. Seiichi Shimasaki (MEXT Particle/Nuclear Physics Promotion Office)

Mr. Sakurada (MEXT Vice-Minister at the time)



Jan. 17, 2014 @ CERN/LHC

MEXT Minister's announcement →
Panel for ILC setup in May 2014

ILC Taskforce, Panel for ILC:
Two Working Groups started in June 2014

- Particle and Nuclear Physics Working Group (Physics)
- TDR Evaluation Working Group (Evaluation of TDR, Cost, Technology, Personnel, etc)

Particle/Nuclear Physics Working Group

■ First Meeting (June 24, 2014)

- Discussion procedure in the working group
- Current trends in particle physics
- ILC project summary and its physics scope

■ Second Meeting (July 29)

- Worldwide future plans (P5 report, European Strategy)
- Scientific merit and role of ILC

■ Third Meeting (August 27)

- Trends in related areas (cosmic rays, astrophysics)
- Scientific merit and role of ILC

■ Fourth Meeting (September 22)

- Trends in related areas (flavor physics, neutrino physics)
- Scientific merit and role of ILC (relation to LHC experiments)

■ Fifth Meeting (October 21)

- Summary of discussion for interim report

■ Meetings (Jan., Feb.),

TDR Evaluation Working Group

- First Meeting (June 30, 2014)
- Second Meeting (July 28)
- Third Meeting (September 8)
- Fourth Meeting (November 4), 5th Meeting, 6th Meeting...

Reliability of technology, cost/personnel estimate, etc.
(Primarily closed sessions)

Panel for ILC at MEXT

Second Meeting (November 14, 2014)

Outstanding issues:

■ Scientific significance

- Relation with LHC (expecting achievement beyond what will be done by the LHC in the future)
- Explanations that are easy to understand to the public

■ Technology and cost

- Uncertainty in cost
- Helium supply, seismic safety

■ Overall

- Impact on other academic areas
- Ripple effects (creation of an international center, technological applications, etc)
- Future of Japanese economy

Government-to-government talks

■ Report by MEXT

(November 7, 2014, at Federation of Diet Members meeting)

Begin talks among Japan-U.S.-Europe

- In Geneva, July 2014: talks with officials from Europe and U.S.
 - Japan: Mr. Tsuchiya (MEXT Deputy Minister) and others
 - Europe: Robert-Jan Smits (Director-General, DG for Research and Innovation, European Commission)
 - CERN: Rolf-Dieter Heuer (Director-General, CERN)
 - USA: Director for High Energy Physics
 - Germany, France, UK, Italy, Spain: Officials

Now: reaction by other governments is key

INDUSTRY SECTORS

Advanced Accelerator Association Promoting Science & Technology

AAA incorporated on December 3, 2014

Reformed as general incorporated company

100 companies, 40 universities and research institutions

- Key technology development and cost reduction
- Use of Media and SNS to promote public understanding
- Promote industry application of accelerator technology from ILC and others
- Expanding the manufacturing process of accelerator projects in the private sector
- Study urban development, maximizing ripple effects
- Donations

Government Evaluation JFY2014-2015

Key Points

- International Sharing (cost, personnel) prospects by MEXT, foreign governments
- MEXT Panel for ILC
 - Scientific significance (Particle/Nuclear Physics WG)
 - Technology/Cost reliability (TDR Evaluation WG)
 - ➔ to deliver interim report (~March 2015)
 - summary of cost, human resources, issues to solve,
- Impact on economy and technological applications
Relegated by MEXT to Nomura Research Institute
 - Visit EU, US, Asia ➔ Report by March 2015
- Public understanding (National publicity and understanding)

Support from policy-makers:



Federation of Diet Members (Multiple Parties)

Chair: Mr. Takeo Kawamura

Secretary-General: Mr. Ryu Shionoya

(150+ Diet Members, March 2014)

August 6, 2013 Presented Resolution and Policy Report to PM Shinzo Abe

“The ILC should be promoted as a Prime Minister project, to be funded separately from the normal government budget, in the growth-for-Japan framework in view of the national strategic areas” (partial translation of resolution)

Support from Business Communities

Japan Association of Corporate Executives (April 2013, August 2013)

Japan Chamber of Commerce and Industry (August 2013)

Japan Business Federation (January 20, 2014)

Prime Minister Shinzo Abe

Election support speeches & interviews in Tohoku regions concerning the ILC:

“Project merit is understood. Issues are cost and especially international sharing.”

Towards an international laboratory

April 30, 2013 in Washington, DC

Symposium on Advanced Science and Technology
centered on the ILC



Takeo Kawamura
Chair, Federation of Diet
Members for ILC



Daniel B Poneman
Acting Secretary of Energy



Hakubun Shimomura
MEXT Minister



Hiroya Masuda
Japan Policy Council Chairman



Ryu Shionoya, Secretary General,
Federation of Diet Members for ILC
(third from right)



Towards an international framework

January 2014, MEXT Minister Shimomura @ Washington, DC
Meeting with

From the Facebook page of MEXT Minister Shimomura



January 2014, Washington DC
Mr. Kosaka meeting with



Recognize ILC as an important project



Mr. Kenji Kosaka
Vice-Chair, Federation
of Diet Members for ILC

**Federation of Diet Members for ILC
Visit to Washington, DC July 21-24, 2014**



Mr. Ryu Shionoya
Secretary-General
of Federation

Mr. Takeo Kawamura
Chair of Federation

Mr. Hirofumi Nakasone
President of Japan-US
Parliamentary Friendship League

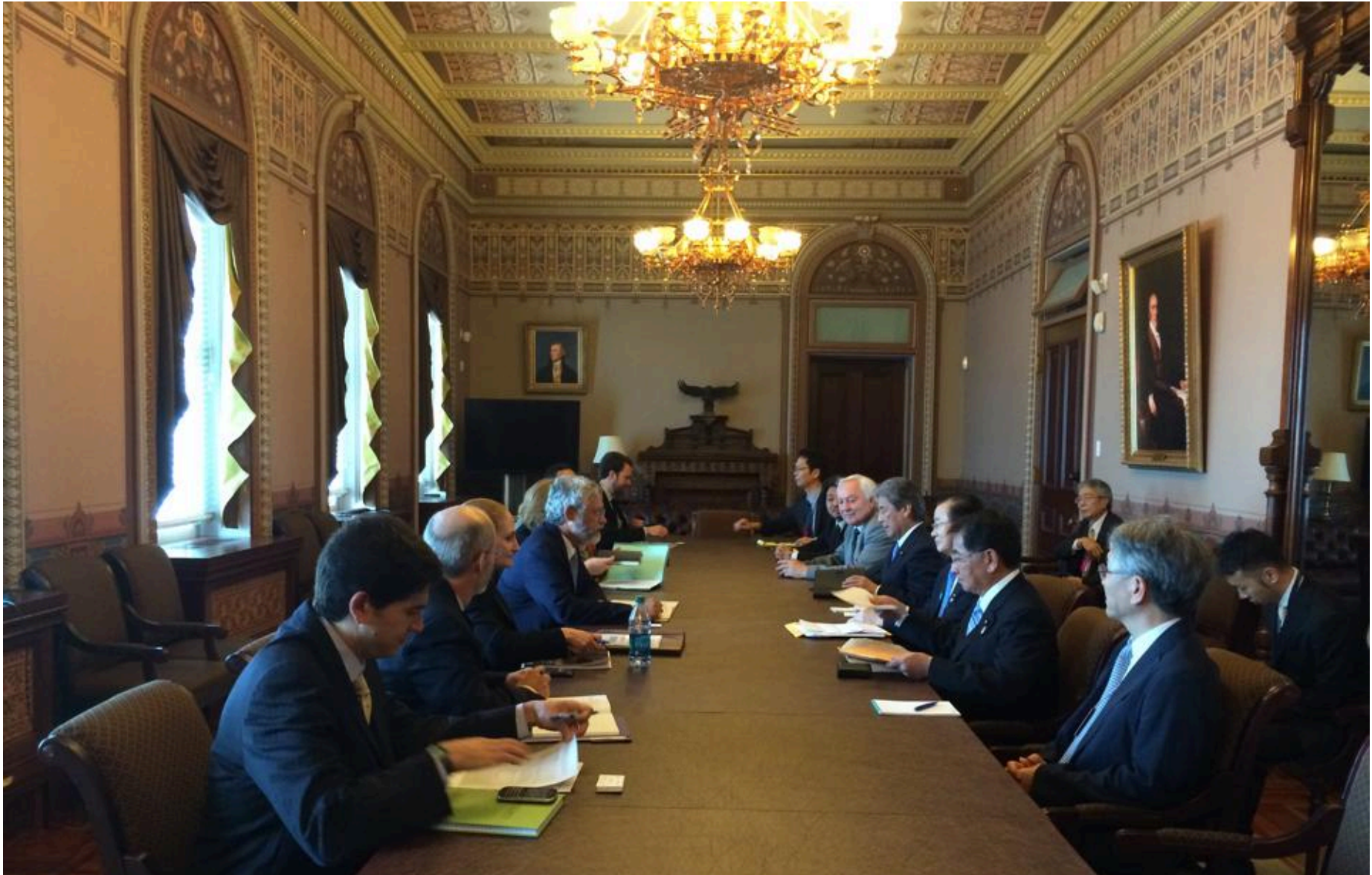


Roundtable Meeting
@ Former Ambassador's Residence
Office of S&T Policy
DOE
Scientists from Japan/US/Europe

@Japanese Ambassador's Residence
Dr. William Colglazier, Science and Technology Adviser to the Secretary of State
Dr. France Cordova, Director of NSF
Others

Meeting with Dr. John P. Holdren, Assistant to the President for S&T, Director of OSTP

July 23, 2014, White House, Eisenhower Executive Office Building



Meeting with
Congressman Rush Holt
(Former astrophysicist)

- Features of US politics
- Budget led by Congress

Coordination with Congress
is key



Congressman Randy Hultgren



Ongoing studies in local regions

- Active efforts by local government, business groups, companies
- Progress in mapping (potentially) accelerator-related companies
- **Wide-area regional/urban development: specific proposals** (Multiple blueprints)
Synergy with ILC project
- **Regional economic effects** (Estimates by university and private sector)

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To do in Winter/Spring in 2015

How to show our strong wish to realize ILC
Collecting Messages of researchers (on-going)
Symposium on 2015 Apr. 22 in Tokyo

Media strategy with AAA and medias

Ground work for inter-governmental discussion
(researchers should help)

Effort for the COST reduction / assurance

Requests and wishes

- Timely **Physics inputs** are most welcome:
 - With Higgs: Significant Physics potential of the Higgs as the probe of the new physics (HPNP).
 - With Top
 - New Particle Search
- Explanation of the significance of the HPNP to scientists outside of the field
- How to explain to “general public (tax payers)”
- Eager to have LHC new results a.s.a.p

Summary

- Japan is seriously investigating ILC project as the official process.
- Inputs of Physics potential and explanations, supports from theorists are most welcome.
- Recognitions of the project at high level of government proceed (Japan: Prime Minister, Minister, high-level officers. US: OSTP Presidential advisor, Secretary of DOE, officers.) Next is EU countries.
- In Japan, Federation of the Diet members, Industry sectors, Local governments strongly supports the project.
- Diplomatic discussion has been started among governments of US, EU, Japan. Will expand to Asian countries. Need researchers' supports.