

# International Development Team and Political Environment

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Aug 25, 2020

# frustration

- Japan expressed interest in hosting ILC back in 2012
- Why is it taking so long?
- anything happening?

March 27, 2013



*Federation of Diet members to promote a construction of international laboratory for LC*

>20% of Diet members signed up to support ILC



私たちは

# 国際リニアコライダー

計画を**応援**しています。

We support the International  
Linear Collider Project.

一関商工会議所 / 岩手県ILC推進協議会

strong support from politicians, industry, regions

# Speech by PM Abe

## 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  
83<sup>rd</sup> session of Diet



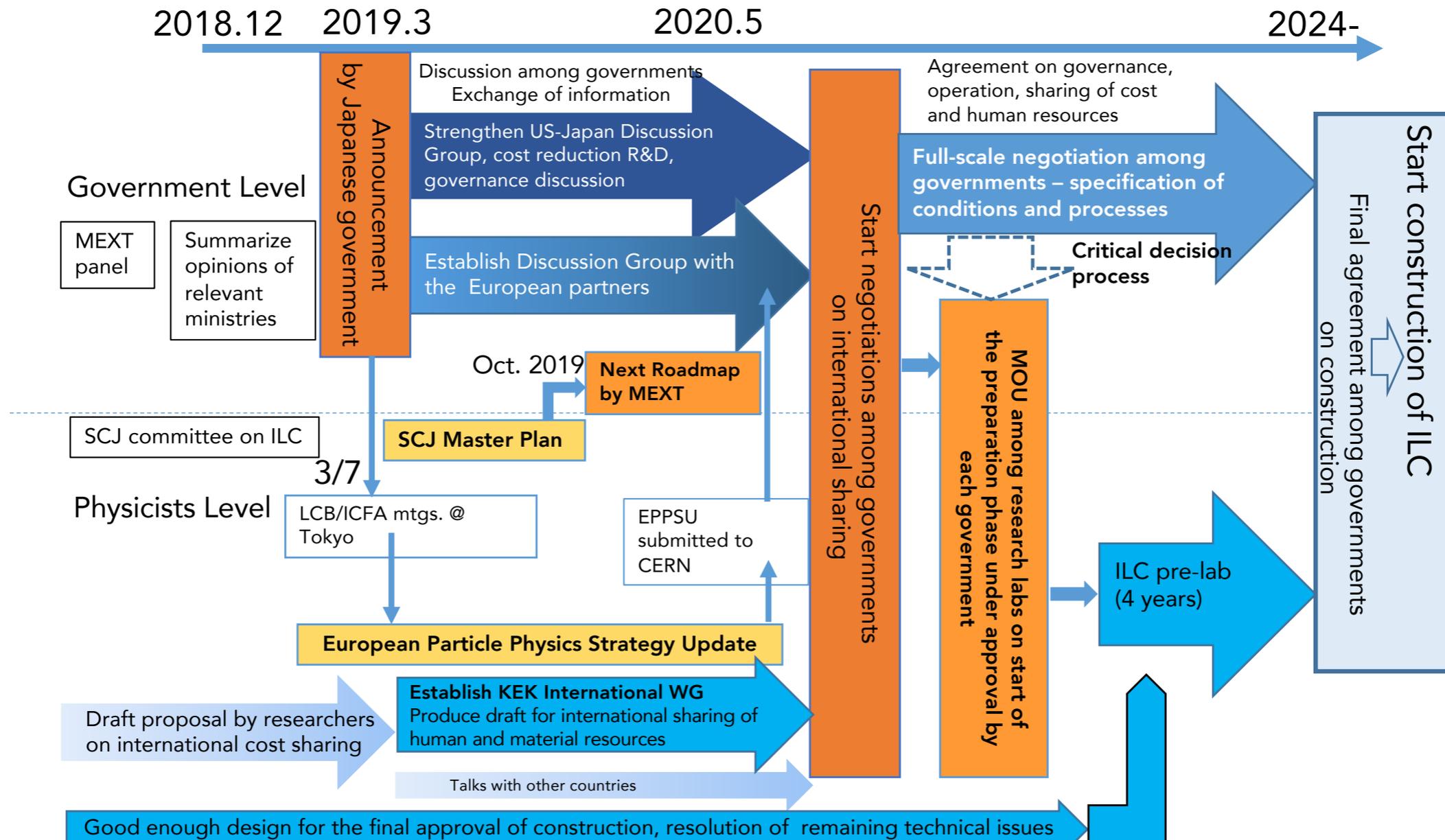
# fact

- a committee reported to Japanese government back in 2014
- “no way to make a decision on ILC before knowing results from LHC Run II”
- since then, multitude of committees in Japan
- they all concluded by the end of 2019
- no more excuses!

# fact

- Japan does not have CD process like in US
- When she “decides”, it is final: all or nothing
- makes it very difficult for Japan to initiate a process
- how do we decouple “interest to host” vs “commit”?
- “Pre-Lab”: organization to “prepare for ILC”

# Processes toward realization of ILC



\* ICFA: international organization of researchers consisting of directors of world's major accelerator labs and representatives of researchers

\* ILC pre-lab: International research organization for the preparation of ILC based on agreements among world's major accelerator labs such as KEK, CERN, FNAL, DESY etc.

## 3. High-priority future initiatives

**It is essential for particle physics in Europe and for CERN to be able to propose a new facility after the LHC**

- There are two clear ways to address the remaining mysteries: Higgs factory and exploration of the energy frontier
- Europe is in the privileged position to be able to propose both: CLIC or FCCee as Higgs factory, CLIC (3 TeV) or FCChh (100 TeV) for the energy frontier
- The dramatic increase in energy possible with FCChh leads to this technology being considered as the most promising for a future facility at the energy frontier.
- It is important therefore to launch a feasibility study for such a collider to be completed in time for the next Strategy update, so that a decision as to whether this project can be implemented can be taken on that timescale.

- a) An electron-positron Higgs factory is the highest-priority next collider. For the longer term, the European particle physics community has the ambition to operate a proton-proton collider at the highest achievable energy. Accomplishing these compelling goals will require innovation and cutting-edge technology:
- *the particle physics community should ramp up its R&D effort focused on advanced accelerator technologies, in particular that for high-field superconducting magnets, including high-temperature superconductors;*
  - *Europe, together with its international partners, should investigate the technical and financial feasibility of a future hadron collider at CERN with a centre-of-mass energy of at least 100 TeV and with an electron-positron Higgs and electroweak factory as a possible first stage. Such a feasibility study of the colliders and related infrastructure should be established as a global endeavour and be completed on the timescale of the next Strategy update.*

*The timely realisation of the electron-positron International Linear Collider (ILC) in Japan would be compatible with this strategy and, in that case, the European particle physics community would wish to collaborate.*



## ICFA Statement on the ILC Project

February 22, 2020

ICFA was encouraged by the reports from Mr. H. Masuko, Deputy-Director General, MEXT Research Promotion Bureau and Hon. T. Kawamura, Chairperson of the Federation of Diet Members for the ILC, at the ICFA meeting held at the SLAC National Accelerator Laboratory, Stanford, USA, on the 20<sup>th</sup> February 2020.

Based on these reports:

- ICFA reconfirms the international consensus for a Higgs factory and wishes to see the timely construction of the ILC in Japan.
- ICFA acknowledges and welcomes the inter-governmental discussion between Japan, the United States and European nations, to advance international collaborative activities for the ILC.
- ICFA notes the need for a preparatory phase ahead of the establishment of the ILC laboratory and the construction of the ILC in Japan.
- ICFA advocates establishment of an international development team to facilitate transition into the preparatory phase.
  - The development team should be hosted by KEK, with leadership chosen with the help of ICFA.
  - The team would develop a plan for the preparatory phase for the construction of the ILC, including technical, organizational and governance issues. It also would be tasked with understanding the activities and resources required in the preparatory phase. The process of developing the plan should involve the interested laboratories and community.
  - ICFA anticipates that these development activities could be completed in approximately one year, at which point it would be possible to launch the preparatory phase for the ILC, provided Japan expresses intent to do so together with international partners.
- In view of progress towards realisation of the ILC in Japan, ICFA encourages the interested members of the high energy physics community, laboratories, and nations, to support and participate in these preparations aimed at the successful establishment of the ILC.

# ICFA

- decided to disband Linear Collider Collaboration which steered both ILC & CLIC
- stop gap organization to pre-lab: International Development Team

## **Preparation for the ILC Pre-Lab**

**Adopted from proposal to ICFA by the Linear Collider Board, 31 July 2020**

**Confirmed by ICFA, 2<sup>nd</sup> August, 2020**

### **Preamble**

In its Statement on February 22<sup>nd</sup> 2020, the International Committee for Future Accelerators (ICFA) stated that “ICFA advocates establishment of an international development team to facilitate transition into the preparatory phase” for the construction of the ILC in Japan and asked the Linear Collider Board (LCB) to work out a proposal for the transition team.

Following the proposal by LCB, as the first step towards the preparatory phase of the ILC project, ICFA will establish the ILC International Development Team (Team). This document elaborates the terms of reference of the Team.

The Team will replace the LCB/LCC organization, whose mandate ended on June 30<sup>th</sup> 2020.

### **Terms of reference**

#### **Mandate**

The mandate of the Team is to prepare the ILC Pre-Lab without pre-empting the work of the Pre-Lab. The mandate includes:

- clarifying the function and organization of the ILC Pre-Lab based on the KEK International Working Group report,
- developing a common understanding for the condition to start the ILC Pre-Lab,
- providing an international framework for the ILC accelerator effort and coordinating further R&D and engineering design work for the ILC in order to sustain the community effort and to guarantee a smooth transition to the ILC Pre-Lab phase,
- providing an international framework for the ILC physics and detector activities and coordinating physics and detector R&D effort in order to sustain the community effort and guarantee a smooth transition to the ILC Pre-Lab phase,
- negotiating with international partners (e.g. universities, national and regional laboratories) for resources needed for the ILC Pre-Lab, and
- providing necessary information to the national authorities to support their discussion of the establishment of the ILC Pre-Lab.

The Team will regularly report its activities to ICFA.

### **Structure and Function**

The Team is hosted by KEK and consists of the Executive Board (EB) and three Working Groups (WG1, WG2 and WG3):

- The EB comprises a chair, three members reflecting the three regions contributing to the ILC effort (Americas, Asia-Pacific and Europe) and three ex-officio members (KEK liaison officer and Chairs of WG2 and WG3, whereas WG1 is chaired by the EB Chair). The EB members are appointed by ICFA. The EB has the overall responsibility for the Pre-Lab preparation; some of the work will be carried out at KEK.
- WG1 carries out the main task of the Team, i.e. working out the function and organizational structure for the Pre-Lab, as well as supporting the preparation of Memoranda of Understanding (MoUs) among the national laboratories and other interested parties needed for the operation of the Pre-Lab, and supporting discussions at the national authority level.
- The membership is established by the EB and includes the EB members. It is chaired by the EB Chair.
- WG2 conducts the ILC accelerator and facility work. It is responsible for continuing the accelerator and facility work as previously carried out under the LCC framework. The WG2 effort will be taken over by the ILC Pre-Lab when it will become operational. The members are appointed by the EB.
- WG3 carries out the ILC physics and detector activities. It continues the study of the ILC physics capabilities and detector efforts as previously carried out under the LCC framework, reflecting the on-going progress of the field. It guides the community to be ready when the ILC Pre-Lab will establish its physics program. The members are appointed by the EB.

### **Resources**

Limited funding is required to support the EB activities in personnel and operational costs as well as for administrative work. The LCB proposes that the required support will come from the host laboratory, KEK, as well as other interested international partners, moderated by the Funding Agencies for Large Colliders (FALC), in a similar way that the LCC activities were supported.

### **KEK's role as a host**

KEK hosts the Team and provides support that includes:

- office space and necessary utilities in the Tsukuba campus, and
- administrative and travel support as agreed by KEK and the Team.

### **Timeframe**

The Team will commence preparation for the ILC Pre-Lab as soon as it is established by ICFA and finish its mandate and term with the start of the Pre-Lab operation. It is anticipated that the work will be completed in one to one and a half years. If the activity is not completed by the end of 2021, ICFA will need to evaluate the progress and to decide how to proceed.



# Japan, German, France agreed to set up ILC Discussion Group

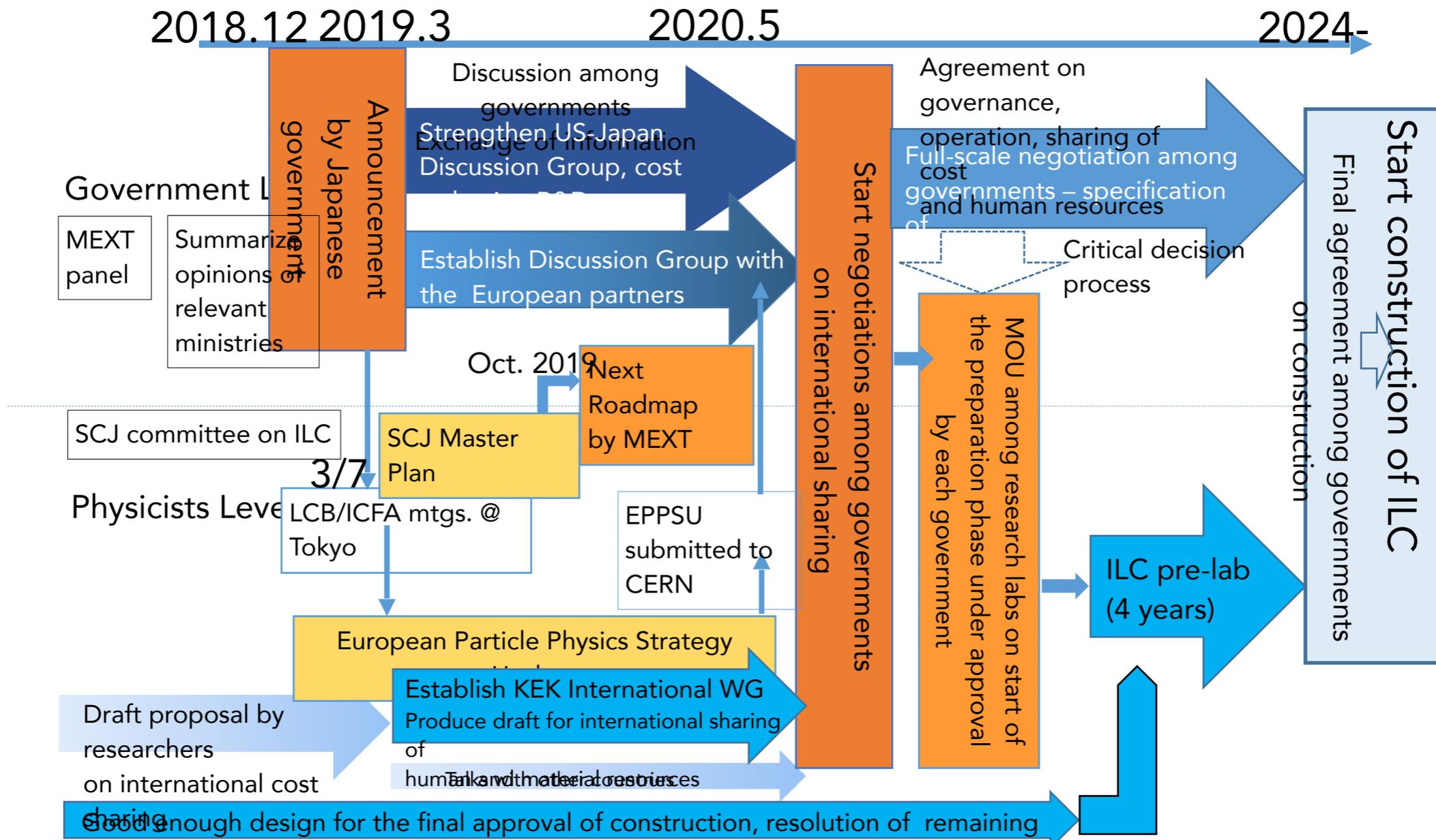
*July 1-2, 2019 @ Berlin and Paris inter-governmental discussion*



訪欧団  
 河村建夫議連会  
 塩谷立議連幹事  
 伊藤信太郎議員  
 文部科学省  
 日本大使館 他



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## Minister of State for Science and Technology Policy, Hon. Naokazu Takemoto

**Translation of comments by Hon. Naokazu Takemoto,  
Minister of State for Science and Technology Policy  
January 31, 2020**

[On the Master Plan 2020]

To put it simply, the project made it through the first round of evaluations, and there were about 60 such projects. In the second round, 31 projects were selected, and the ILC was not among them. However, **this is a viewpoint of the Science Council. When considering the possibilities going forward, MEXT will look at high-priority research topics, and I hear that the ILC will be included in the list of these topics. I think how the project will be evaluated at this stage will be important next.**

[On the cost of ILC]

The issue is that the ILC project requires a vast sum of money, which some say is close to 1 trillion yen. The cost is to be shared among many countries, but some say that Japan needs to shoulder most of it. **Even if these are the presumptions, I personally think we should strongly ask for realizing the project. It will effectively** contribute to regional revitalization. It will give back hope to people who have suffered greatly by the [Great East Japan Earthquake]. Furthermore, it will give Japan's technology an advantage to have an important share in the area of the world's scientific research. Considering these aspects, I think we should firmly consider the project in the affirmative direction.

[On the funding for ILC]

**This project can be only realized by putting together budget from many places, such as regional development and other things. [..] The value of the collider could be that it will become a beacon of hope that will bring back the liveliness among the people. I believe the project cannot be realized without considering various ways of funding and various viewpoints.**

**[..] After all, my role is inter-ministry coordination. For each ministry's budget, my position allows me to say for example that the budget for certain things need to be increased. I intend to proactively give my opinion on what methods should be taken for the project to succeed.**

**MEXT will be performing the next considerations for the ILC. We intend to give our opinion to this process that we should proactively engage in this project, not only from the viewpoint of promoting science and technology, but also from the viewpoint of regional development and other things.**



**Dr. Chris Fall**  
**Director of the DOE**  
**Office of Science**

The SC is reorganizing operations to create an integrated and comprehensive international strategy across all SC programs and their international partners to ensure coordination on large strategic goals. The SC is hopeful that Japan will commit to an ILC, a project that would span many programs within the SC. The EPPSU is also considering an ILC.

at HEPAP meeting, July 10, 2020

# going on now

- according to Satoru Yamashita:
- letter from State US department to Minister of Foreign Affairs
- nudged Japanese politicians to move forward
- true test: budget request in summer 2021
- start of “pre-lab” in spring 2022



ILLUSTRATION BY JAMES FLAHERTY

**I WANT YOU**  
**FOR THE ILC**

**NEAREST RECRUITING STATION**