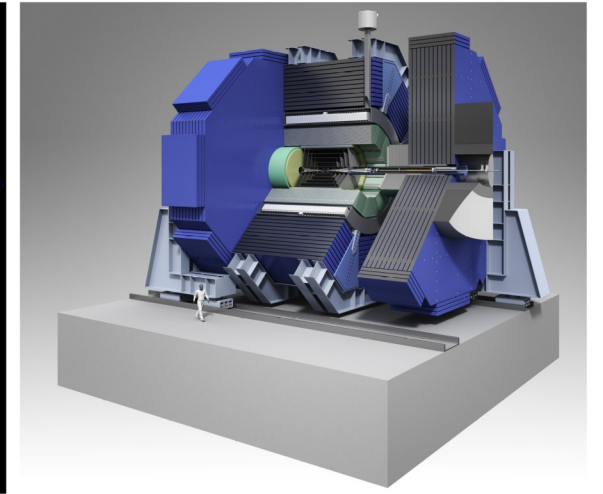
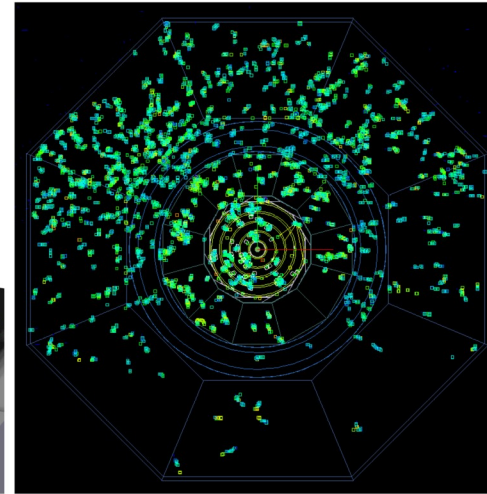
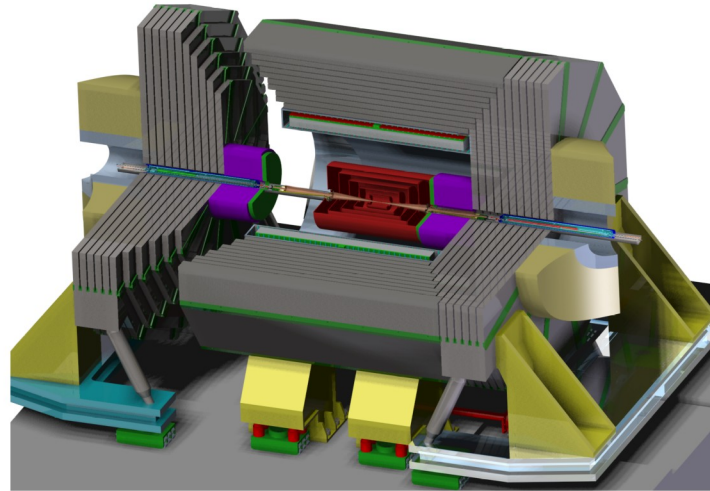


# Reforming a European ILC Effort

Report from the “Steinar Meeting”



Marcel Stanitzki  
26/06/2020

# The “Steinar Meeting”

12/06/202

July 2, 2018

## Preparation Plan for European Participation in the International Linear Collider

Towards a European Contribution to the ILC

### Attendance

- Core Team from E-JADE days., responsible for the European Action Plan report
  - see e.g. here
- Additional Representation based on
  - VIP Status
  - Country
  - Expertise (Accelerator/Detector/Physics)
- Overall about 40 people attended for a very open exchange

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# The Background

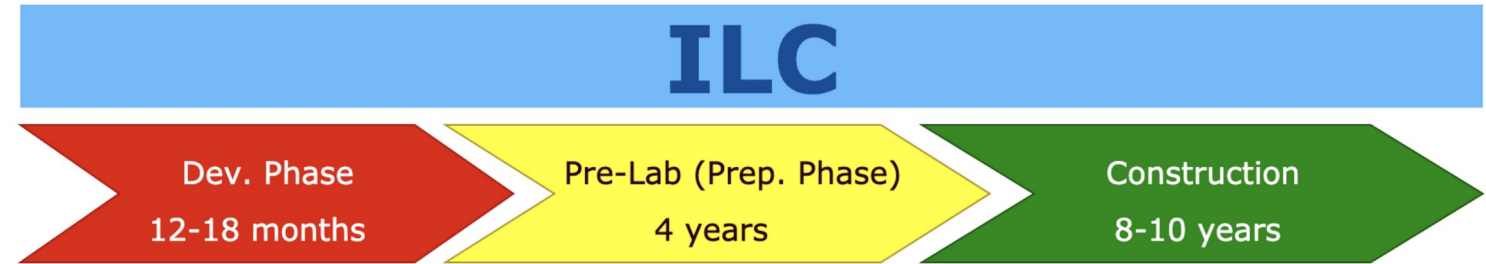
## The End of LCC

### Linear Collider Collaboration

- Mandate ends by the end of June – aka now
- What comes next in light of positive Japanese developments

### New Organization to be put in place

- Main goal: Establish an ILC pre-lab



#### Development Phase effort Hosted by KEK

Main goal: The development phase 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.

Executive Group 4-5 persons, composition, names and mandate defined by ICFA (LCB)  
WG on Pre-Lab preparation (large overlap with Executive Group)  
WG on Accelerators  
WG on Detectors and Physics

Based on bilateral agreements

ICFA statement ([link](#))

Discussion today: How do we make sure European groups/labs/individuals can participate and be informed in this phase

# Focus of the Meeting

## Taking the European perspective

### If the ILC goes ahead, how would Europe participate

- Pre-Condition Support in the European Strategy
- Political & Funding
  - Bilateral Agreements
  - All European Effort goes via CERN
  - A “hybrid” approach
  - An ILC platform like the Neutrino platform for DUNE (and HyperK)
- Technical
  - Contribution to the Accelerator
  - Contribution to the Detector
  - Contribution to Core Software

### Where would we participate

- Accelerator
  - Reasonably Well understood what needs to be done
  - European Expertise relevant for all aspects
  - Missing is a clear “interest” for the key players
- Detector considered a bit more “diffuse”
  - Recent Higgs factory studies
  - *Important issue for Europe, with two of these proposed in Europe ? Our FAs might be truly confused if several similar funding applications come in, proposing Higgs studies for different machines. Is this a concern ?*

# Activities in Europe

## Now and upcoming

### In Europe

- Pre-Lab setup (Governance), well documented elsewhere
- What is needed for Development Phase (a more modest goal)
  - Bilateral agreement for Development Phase CERN–KEK
  - Areas of collaboration CERN-KEK related to ILC (many existing agreements)
  - Move of LCC hosting at CERN to KEK for ILC activities (WEB, news, common fund accounts)
  - CERN facilitates European involvement in Dev. Phase (common fund, CERN office at KEK can help, WG participation, etc)
  - Aim for other agreement to follow between European FA/Labs and KEK/Japan ?
- Work to do short term:
  - Complete bilateral agreement above
  - Overview of (encourage) new relevant agreements European partners-KEK/Japan ?
- Longer term: Adapt to Dev.Phase WG on Pre-lab setup and Governance

### From Steinar:

- Two main focuses the next year or two:
  - Build on ongoing and focus on near term technical work
  - Planning for next phases: European capabilities and possible deliverables - for Prep. Phase and Construction studied in EJADE report (covered to some extent also detectors)
- Next (as a proposal) for the Accelerator Part
- Revive “EJADE” accelerator working group, extend/adapt it, adapt also mailing list(s), meet every ~4-8 weeks
  - Cover:
    - Participate in technical design where we can find effort
    - Establish and refine possible deliverables list for Europe
    - Initiate carefully contacts with FAs/Labs management related to “deliverable planning”
    - Explore funding mechanisms for prep phase (need ~40 MEURO/year according to EJADE report)

# Steinar's Questions to the Detector community

Answers are the mainly my view

## How to organize a European Detector effort

- The community is very global and well connected
- Joining the ILC experiments will be as for the LHC experiments an institute-level decision
- The Higgs Factory phase transition will happen with a Japanese commitment
- European View towards TDR phase ?

## Resources for the preparation phase

- On the back-of-the envelope
  - From action plan: Europe about 40% of the experiments
  - Cost of one detector ~ 400 Million (2012)
  - Preparation phase 10% of detector cost
  - Dedicated R&D will be detector project-funded

## Ideas for a “European Contribution”

- Based on e.g. AIDA-2020 model but strongly LC focused – will 10 million in 5 years be enough ?
- Common Software
  - Real Achievement from LC community, needs to maintained and strengthened
- European Design Office
  - Essential for MDI work and integration issues
- Common ASIC development & Common CMOS submissions
  - Already established for HL-LHC
  - Real benefit for all the interested groups
- For the Start-Up phase
  - Central Support of core detector group

# Summary & Outlook

## The next six month

### European Strategy is just out

- Take advantage of positive statements

### Reconvene in July and September

- Discuss Detector-related issues in detail
- Discuss a general strategy for the next steps
- React to the formation of the LCC Successor

### Turning the ILC into a project with a strong European participation

- All this only gets real momentum with strong Japanese moves
- Building up such an effort will require real money and resources (aka people)

**Next one year is the time to**

**MAKE THINGS HAPPEN!**

**Thank you**