

# SiD – Next Steps



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for the SiD Concept

# SiD/ILC Status

- This has been a **good workshop with a many useful reports and discussions.**
- The **ILC project has been endorsed (EU Strategy, Snowmass)** – we have an accelerator design that will deliver the required luminosity, and detector designs that can deliver the physics.
- However, we face a difficult period while the negotiations take place.
- We must **use this period to move SiD forward** and position ourselves for an eventual real experiment.

# What's next?

- For all regions the ILC project in Japan is viewed as the most likely next major collider facility.
- For the U.S. it is clear that there will not be a clear decision to proceed with the ILC project in Japan by the time P5 reaches its recommendations.
- The scale of a future U.S. contribution to the ILC could be in the range \$0.5B - \$1.0B (The initial U.S. contribution to the LHC was \$0.55B). A large part of this may have to be “new money” – outside the regular U.S. HEP budget (?)...Detector costs?
- So we would hope for a strong endorsement of the ILC program from P5, with maybe a statement that a significant part of the U.S. funding would be from outside the scope of the regular HEP budget (?)

# What's next?

- For the U.S., we could benefit from the current administration's focus on the Asia-Pacific region...?
- We should argue for a reasonable level of support from the HEP budget to continue to prepare for the start of an actual ILC project.
- So we should understand the potential course of events for the next 2-3 years, our goals, and have a good understanding the resources needed to achieve those goals.
- Continue to make the arguments that the **ILC is *the* next major step and global project** for HEP, and the U.S. must have a role in the full exploitation of the Higgs etc., in which we have already invested so much...

# What's next?

-The goals include:

- ★ **Optimization** of the detector (physics and detector studies by physicists with input of some engineering realities)
- ★ Further **benchmark studies** as new ideas/new LHC results emerge (by physicists, with support for computing services)
- ★ Detector **prototype R&D completion** (physicists, technicians; will require arguing for a minimal budget/using discretionary funds at labs hopefully with the backing of a strong statement from P5)
- ★ Ramp up towards a **TDR** with **subsystem engineering and detector integration** (physicists and engineers at a minimal level to begin, increasing with time)

# What's next for SiD

In anticipation of the project proceeding, we are going ahead with establishing the “**SiD Consortium**” as a precursor to a full collaboration. This will give us the working structure and representation we need to be part of the new LCC.

We will use the **SiD Newsletter** and the **SiD General Meetings** to keep members of SiD informed as the situation develops.

We ask SiD members to **sign up for the Consortium**, contribute to the planning, request support as part of your grant requests, be prepared to get involved with the TDR when the time is right.

# What's next for SiD

- Please **contribute to the planning for the next steps**:
  - Review the task lists for SiD that we will prepare
  - Offer your ideas for optimization of the SiD design
  - Involve students in short term detector and physics studies
  - Be prepared to discuss new ideas with new people joining SiD
  - Be prepared to write grant proposals for your R&D work when the time is right
  - Contribute to the preparation of resource requests for the TDR
  - Connect to the SiD General meetings
  - Offer your ideas for SiD organization moving forward

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# SiD Workshop

Thank you for being here and taking part

Thank you to Marty, Norman and the SLAC Staff !