

# SCRF Cavity Technology and Industrialization

Jim Kerby 23 May 2010



#### Goals of the Workshop

- We want to develop the industrial model that would be the best for the cavity and cryomodule production for the ILC,
- This includes:
  - The project-industry relationship
  - Quality control
  - Scale-up to production quantity
  - Cost--effective manufacturing



#### Thank You!

Many thanks to <u>all</u> for the informative presentations, comments, and insights.

The success of the cavity technology and industrialization effort relies on integrating the efforts of us all.



### (My) Summary

In summary (short)...

The ILC is a <u>project</u>, not a business. The ILC will need to address the industrial scale up (and tear down) changes associated with the production plan.

Involving industry early is good! For...

- Cost reduction
- Technical performance
- Inputs early in the design cycle
- Shortening of production time
- Understanding the lab / industry interface
- Inputs to alternative methods

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### Summary (con't)

- All 3 regions will see increasing involvement of industry in next several years (in different ways)
- What is the long term 'business' volume?
- What increment is the ILC plan beyond that?
- ILC project will be small to medium in size for companies...best served by flexible workshops and flexible cells of manual work.
- The CERN implementation of an integrated supply chain is a good and important model to learn from. (Technical and Functional spec examples are available on the web).
- Other industry / laboratory models and examples exist!



### Summary (con't)

Information sharing is possible and beneficial, when an atmosphere of openess exists (boundary conditions matter! No follow on, build to print...). Direct technical communication is critical.

Industry is willing to assume risk when quantifiable.

Carefully matching the role of each company to the deliverable critical

Cost modeling, design studies, plant sizes ....have been modeled.

 Cross check and validation of the model inputs between XFEL, Asian and Americas region models might be educational



## Summary (con't)

Plenty of work to go! Please email me (<a href="kerby@fnal.gov">kerby@fnal.gov</a>) with your comments and clarifications, I will (try to) include them in a summary to be posted.