ILC Communications: July 18th Workshop
Pre-Workshop Questionnaire

RESULTS
7/11/06

a) What do you hope we achieve at the workshop?

Strategic

1. Understanding ILC audience(s) and agreeing on a consistent, credible, and compelling message/strategy for each (including avoiding pitfalls)
2. Learning what the communications group suggests are compelling messages and how to deliver them
3. Come to some agreement on the most important motivations for constructing the device.
4. Guidance for how to proceed with the ILC outreach effort globally.
5. Agreeing on which sectors have to be transmitted to the public and in which way

Tactical (these are more likely as post-workshop actions)

1. A clear plan for how we move forward in getting the message to the audience over the next year or two. Who does what, how and when? Develop a communications plan for specific targeted audiences with feedback on their reception or lack thereof. Some concrete plans for how to proceed with the ILC outreach effort globally.
2. Making sure the message is easily translatable, not only through languages but societal context where applicable.
3. Develop a prioritized list of communications aids and materials for a variety of audiences. Acquiring a toolkit of common slides and presentation elements (slide subsets on specific and less general topics). Obtain convincing and educational PowerPoint slides that we could use for making presentations on the ILC. Having a better graphics/boilerplate. archive.
4. Learn how to present the ILC and its physics case to a variety of audiences, most of them non-technical. Hints from other communicators about what approaches / explanations have been effective in conveying key elements of the message..
5. Understand the funding agencies and the Congressional aides who write the appropriations bills, and how to influence them.

b) Who are the target audiences for ILC communications; what are their needs?

1. ILC physics community: feeling they are part of the project - providing input, actively participating, using output; stay connected, collaborate, develop trust
2. The HEP community worldwide and our own laboratories, i.e., Fermilab, CERN, and all smaller labs: get with the program; BELIEVE, play nicely with others
3. Regional HEP communities: sweet harmony, credit for all, synergy with LHC
4. Universities and institutes: information, what's their role, how they can benefit , LHC synergy

5. Other fields of physics: compelling science, what's in it for them
6. The non-ILC science community / non-EPP scientists: understanding why ILC (which many of them view as a competitor for $$) should be built. Other scientific communities (showing synergies) who may be threatened by large funding increased that will be requested by the ILC. The zero sum rice bowl. They need to understand that an increase in science in one area leads to increases in all other areas, not a decrease as was argued with the SSC; compelling science, what's in it for them
7. Elected and appointed government officials / Congresspersons and key committee staffers / policy makers : a digestible explanation for why there should be an ILC, one which they can remember and use with their constituents; need clear, effective, brief inputs on what we do and what we want.
8. Young scientists (college through post-doc age): an understanding of why the ILC is an exciting and challenging project that they want to participate in.
9. The taxpayers of the governments which are funding ILC research and hopefully will fund ILC: a digestible explanation of what we are doing with their money and why it is a good thing that we are doing it. Ability to distinguish and target different cultures of different countries.
10. General audiences such as Rotary clubs
11. National and other Funding agencies: the science is worth the investment; the costs are understood; credit for them, synergy with LHC; support for American competitiveness
12. General public: they need to feel they understand the essence of the project goals and methods, sufficiently to have an interest in supporting the project with decision-makers within their communications circle. Members of the general public in close proximity to potential sites have a need for much more detail so that they can be assured that there is an acceptable risk-benefit balance for them to have the facility in their back yard. Science! International collaboration. Economic benefits. Educational benefits. Competitiveness
13. Influential citizens: a target audience because we want them to lobby for the project, and to do so they will have to be convinced of the intellectual, social and economic benefits.
14. Business / High tech industries and engineering and industrial professional societies / On-off shore Investment & economic development community: they will need to understand the project well enough to know what business opportunities will exist.
15. Policy makers and opinion leaders: much the same ICFA, ECFA, ACFA, HEPAP, OECD, IUPAP, JPS, EPS, APS, DPF….their role in the project; what's happening in communication, credit for them.
16. Media: the science!!! the unprecedented global nature of the project!
17. Our neighbors / affected communities: Crucially - meaningful involvement in planning and decision-making; allay concerns; excitement about physics
18. Students and teachers: science! roles for them. Secondary school students and teachers. Students of all ages. It is important to educate the older generation through their children. This should help to promote the ILC to the general public.
19. Note: People will fall into more than one audience

c) What would indicate ILC communications were successful? What are the goals of ILC communications?

1. Government officials and science ministers would request presentations for their constituents (e.g., parliaments, congresses, cabinets, funding agencies) and use the ILC as an example of "continued, improved, scientific cooperation in solving world class problems."
2. Increased recruitment of young scientists into ILC
3. Increased comprehension of what we are doing and what we want to achieve amongst the populace.
4. Public Relations: Favorable press coverage in the general media; a continuous stream of positive articles in the media; good press coverage of the project as important milestones are passed; seeing articles and letters to the editors of newspapers; seeing news clips on TV about the wonders of the new project; frequent science topic for lay media feeds - cable, radio, newspapers. Getting interest from usual public messengers such as newspapers and TV. Media attention (Nova, PBS); local a) communities, b) schools, c) universities, d) governments - asking for presentations
5. Popular target for government & NGO initiatives to accelerate science & technology as a part of national economic development
6. ILC would gain support outside the HEP community. Key people would become advocates; others would lend their support.
7. Endorsed through the American Competitiveness Initiative.
8. There is one goal for ILC communication: Building the ILC. That is how we will know we were successful.
9. An intermediate goal is funding for ILC R&D. We will know we are successful, for example, if the FY07 appropriation includes a doubling of funding for ILC R&D. There could be intermediate indicators that we are moving in the right direction, but ultimately it's the $$$ that tell us if we are getting through.
10. At least passive participation from the ILC community
11. "The Buzz" !! The same type of interested that s specific to astro-particle physics in some places these days, perhaps coupled to media and academic messages.

d) What are the 2-3 compelling elements of the ILC story?

1. Discovery potential
2. High discovery potential in basic science
3. High tech research & development center networked world-wide
4. Educational center for the next generation of world scientists
5. Answers to the questions, "Where did all this come from?", "where is it all going?", ie the cosmological import of studying the relationship between dark matter and ordinary matter, super-symmetry, EW symmetry breaking -- without those, "The Higgs and Super-symmetry" just sound dumb
6. Maintaining America's leading role in science and technology ("Above the Rising Storm…")
7. Potential spin offs of technology to other science and engineering disciplines

8. Development of 21st Century instruments, e.g, billion-channel detectors, ultra-fast image captures, superconducting cavities, fantastic light sources for real-time imaging of biological systems, a super-GRID,
9. For the history books, "Discovery potential".
10. Far and away the most compelling thing we have to sell is the way in which this project addresses our shared curiosity about the nature of the world. Almost everyone is curious, and explaining the objectives of the project in generally comprehensible terms so that their curiosity can be simultaneously satisfied and stimulated towards greater understanding is how we will win them to our side.
11. The way in which astrophysics and particle physics (the study of the very large, and the very small) are converging.
12. The "gee whiz" elements of the tools we're going to use to explore the Terascale: beams smaller than a hair, moving within epsilon of the speed of light, accelerators cooled to within a couple of degrees of absolute zero
13. Producing and poking dark matter in the lab
14. Looking for extra dimensions
15. Science!!!
16. Competitiveness
17. Global collaboration
18. Necessity of large international collaborations for Big Science.
19. It is the “billiard table” to really get precise knowledge about what is happening in nature.
20. Discoveries via detecting new particles but also detecting new effects via precision
21. We expect deep increase in the electroweak sector – only ILC can do that,
22. Probably will learn more about what mass is and make progress towards a theory of gravity.
23. Filling in the missing pieces of a very successful theory
24. Universal problem solving and scientific knowledge on a global scale (not just collecting knowledge, but making discoveries that require thousands of collective minds applied to the exploration)

e) How is ILC different from other scientific research initiatives?

1. Designed, funded, managed and operated as a fully international scientific project
2. Perhaps also the dedication of the people working on it -- these people really think the ILC is the way to go, or else they would have voted with their feet a long time ago.
3. Yields long term productivity and scientific payback over several decades
4. Host country will substantially leap-frog ahead of other countries in science advancement
5. It is not different from ITER, for example. And, it is not (yet) fully international, but it will be. It is different primarily because it breaks through several levels science-technology-international cooperation all at once.
6. It can become (should it prove successful) a beautiful model for all future international scientific initiatives, even small ones.

7. It is much more expensive, and for the local community more intrusive, than other initiatives, and therefore is much more dependent on broad and deep support from the general public
8. Addressing basic 'where did it [the universe] all come from?' questions
9. Much more expensive than most
10. Will require new way of doing business (treaties, international agreements, etc.)
11. Is it different?
12. If it is not built, the field could die.
13. Extreme technical challenges of nanobeams
14. Actually might be similar to ITER, the International space station, Aids research, global warming research, and a few others, but the balance between equipment needed for experimentation and the Physics demands of results from say the LHC, make the ILC more unique. The outcome is “fundamental knowledge” (not just problem solving) that may make us reconsider how the entire universe is formulated. Heady stuff, since one motivation is that we do not want to remain ignorant.
15. Note: Research goals are difficult to communicate, no perceived practical applications (such as a cure for a disease)

f) What are the obstacles to accomplishing effective communications?

1. Confidence/excellence perceived as arrogance
2. Arrogance
3. ILC scientists are amazingly poor public speakers, barely able to communicate with their peers much less with anyone outside of the ILC field, incapable of thinking far enough outside their own box to think through how to present ILC to normal people, and utterly unable to convey enthusiasm.
4. Requires too much time to get people to understand the background and rationale behind the project. Very difficult to do a 30 second or even a 30 minute sound bit . Explaining something as esoteric as Higgs or Dark Energy
5. Lack of practical applications
6. Experts who are not yet humbled by the challenge
7. Dismissive regard for anything “not invented here”
8. The generally poor scientific understanding of the American public and its representatives in Congress.
9. Inability to communicate: the old saw about not being able to teach what you don't understand comes to mind.
10. Being unwilling to work hard to find the right and effective analogy for the audience you're addressing.
11. Not differentiated in significantly positive way(s) from other scientific initiatives – “just another one of those science things”
12. Not understanding the needs of the audience, knowing how to present ideas to audiences, discussing a project that is so far from now
13. We need proper plans, coherent guidance and action from the professionals; they must take the lead and drag the physicists in. committees of physicists alone will get us nowhere
14. Forgetting to put science first.

15. Lack of coordination / strategic planning ("Let's do a brochure!")
16. Failure to check messages with audiences.
17. Not enough resources
18. Potential for division among regions, laboratories (e.g. CLIC vs. ILC)
19. Too many words on a transparency!
20. Inadequate supply of fabulous images; insufficient/inadequate visual tools (my audiences find the CERN graphics too childish
21. Within the US political environment, the ILC must be more ethnically inclusive so as to garner important votes from all sectors of Congress.
22. Inability to overcome sociological problems to manage a global democratic effort.
23. Unable to address “how” to enthuse people with something they cannot see, is difficult to understand, and where the need for daily life is not so obvious. Nice pictures will not be enough.
24. Physics community using too much jargon and avoiding true facts.
25. Unable to make EPP fascinating
26. Languages
27. Complexity of the effort, equipment, ideas
28. How much to stakeholders and decision makers truly need to understand to be convinced that this effort is worthy of their support? How do you confront ignorance (that lack of understanding and education on this topic) without appearing arrogant or attempting to “teach?” Some discussion how this effort is perceived by cultural approaches, outside of the physics communications would be of interest to me.