

## **Guidelines for 5-minute community input presenters**

The AARD subpanel is charged with conducting a forward-looking assessment of the advanced accelerator research and development that is funded by the DOE Office of High Energy Physics and by the NSF Particle Physics Program. We would like all speakers to understand that we are not conducting a review of individual grants or tasks, but doing an assessment of the field as a whole.

We are especially interested in gathering information that will help us to address our charge. The key elements of that charge are given at the end of these guidelines. In order to help speakers provide us with the kind of information that would be helpful to the subpanel, we have developed the guidelines given below. We encourage speakers to address these points, whether in their presentation to the subpanel or in written input provided to the subpanel.

### **Guidelines:**

1. What in your opinion are the three most important areas in accelerator R&D required for a rich and productive future program in accelerator based particle physics? Into which of the following categories do they fall?  
  
Short-term: required for planned or approved new facilities.  
Medium-term: to bring new concepts to practice so that they can be considered for the design of a new facility.  
Long-term: exploratory research aimed at developing new concepts for acceleration, new magnet technologies, new materials, and advanced simulation techniques.
  2. In your opinion, what is the likelihood of success of each?
  3. What, in your view would be the impact of successful research on the physics and accelerator fields.
  4. What could be done to best assure the education and training of the next generation of accelerator scientist and engineers that will be needed for a rich and productive future program in accelerator based particle physics?
  5. Provide us with any other information that you believe would help us to address our charge.
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### **Key elements of the subpanel's charge:**

- National Goals: describe in broad terms the needs and goals of US HEP accelerator R&D that are, in the sub panel's view, required for a rich and productive future program in accelerator based particle physics.
- Stewardship: Appraise how the DOE/HEP program should continue to maintain its historical national stewardship for accelerator science and technology in light of the increasingly constrained budget for the program.
- Scope: provide a description of the current scope of the DOE and NSF programs.
- Quality: Appraise the scientific and technical quality of the work being supported and how the US effort rates relative to the worldwide effort in similar areas.

- **Relevance:** Examine the work being performed and determine how well it matches the needs and goals of the high-energy physics program. Are there items missing, items that may be overemphasized, or items that are significantly under-supported? Is the balance between longer term and nearer term research appropriate?
- **Resources:** Estimate whether the program has adequate resources to carry out its scope of effort, and assess whether the program makes the most efficient use of those resources.
- **Management:** Examine how the work is managed and overseen, both in the field and in the agencies. Suggest how the management and oversight might be improved, if appropriate.
- **Training:** Accelerator R&D efforts play a major role in the training of future accelerator scientists and technologists. Is this aspect adequately addressed in the current programs? Are local partnerships between national laboratories and universities performing adequately?