

Calice Oversight Committee – questions on documents submitted Sept 2006 DRAFT

1. Section 4.3 fig 3 (p 8)
How does the resolution $\Delta E/E$ compare to expectation – slope and intercept?
Are there problems in these data due to multiple events and loss of energy by bremsstrahlung?
2. Section 5.1 para 2 (p 8)
'incorporate all features expected of the ILC ASIC'. Is there a list of requirements in functionality. Are there issues of variability of gain, cross-talk and the like?
3. If extra versions are needed how is it funded and how does it affect the time lines?
4. Section 5.4 task 2.4 – how high are the radiation levels? Why is simulation appropriate?
The combination of literature search and staff loss makes it sound like the experiment is short of expertise. How will you know your answer is correct?
5. Section 6 page 11 para 2. what is the event rate of the cosmics run? What are the objectives?
6. Section 8.4 task 5.4 line 6 – 'the analysis is not truly generic for technical reasons'.
This sounds like the coherent simulation structure is lacking. How fast will it all come together?
What is the risk of present work being lost when new structures are introduced? How will you ensure that UK are central players as the project ends?
7. Risk proforma – in every case inherent risk and residual risk are the same, implying that controls and mitigating factors are useless.
Why are there no risks in WP4? What happens if no suitable rad-hard glue is found in the literature search?
8. Gantt charts:

WP1 ID19. What has to happen for a test beam run to be considered a success? What are the 2006 objectives?

WP2 ID67. present simulation results. What are the criteria of success?

WP4. The Gantt chart looks very confused in the period May-Sept 07. Can you spread out the start dates to put less pressure on the timeline.

WP4, ID8. Why is this split in 2 with 20 month gap? The reason for this is not clear.

WP5 ID34 30/9/06 has happened. Does this mean there is now a single coherent simulation for the whole detector?
7. Financial charts.

Explain the (non) treatment of VAT

8. Section 2.2
The OsC would like to know if the EUDET Module 0 pre-supposed any of the ILC layout options and the objectives of the various test beam and cosmic studies (other than to collect huge data samples) as well as the simulation effort.
When will it be possible to start to be able to compare MC with collected data (I note from WP1 Gantt chart that this should be quite advanced for the DESY data). Similar question for analysis of the CERN data wrt Monte Carlo. It is assumed the purpose of these runs is to validate the MC models for later use in a final ILC calorimeter proposal.
9. WP3 section, as written, is not clear. The OsC would want to know why source tests cannot be used to establish basic parameters like minimum ionising particle Signal/Noise and comparison with specifications. Why go to cosmics? Maybe it should be clearer what criteria would be used to decide if MAPS are a promising approach in a way that the WP3 Gantt chart does not seem to address. There is a danger that EID just keeps churning out more devices without a clear idea as to what the key specifications are and a measurement programme to clearly find if they are being met or not.
10. On WP5, it was not clear what would be the key criteria from simulation that might be expected to establish the superiority of one technology with respect to others. This would be true both for MAPS vs silicon pads but also silicon pads compared with other, cheaper options.
11. There seems to be a lot of worthwhile activity, but from the report, not a clear link to easily identifiable goals. Maybe those links are obvious to the collaboration but some of them are difficult to fully identify in the document.
12. Section 4(WP1) talks a lot about millions of events collected but the OsC would like to understand how this translates into precision on measurements etc. if 20M events are expected is 10M enough?