Meeting 01
16th January 2001

e+e- Linear Colliders Panel
Minutes of meeting held on Monday 15th January 2001 At Birmingham University.

Present: *Grahame Blair, Phil Burrows, John Butterworth, John Garvey, Tim Greenshaw, Jordan Nash, Mike Seymour, Susan Smith, Graham Wilson*

Apologies: *Nicolo de Groot*

1. Opening Remarks (GB)

PPC agreed to set up a working two panels on the topic of future UK involvement in

1) e+e- linear colliders
2) muon colliders and neutrino factories

There are two major milestones for the panels to work to

1) Report to the PPC by March 2001 giving some indication of resources, which could form a bid against the SR2000 Technology Fund to provide support over the period 2002 to 2004. This is money administered by EPSRC.
2) Report to the PPC by the end of 2001 giving an indication of work and resources required over the period 2004 to 2007, which would form the basis of a bid against SR2003.

2. Overview of the World Scene (PB)

TESLA TDR report is due in two months time. March 22nd/23rd is the date of the TESLA colloquium (http://www.desy.de/tesla_colloquium/). Looking for approval in 1-2 years. We should encourage participation from Particle Physics, Accelerator and X-ray communities. **Action: All**

The Gilman White paper could be useful and will be distributed when available. **Action: PB**

PB clarified that there was no proposal for a low energy (500 GeV) only machine and that the time-scale for CLIC was construction post LHC.

3. CERN perspectives (GW)

Recommended looking at the recent CERN report
http://preprints.cern.ch/cgi-bin/setlink?base=cernrep&categ=Yellow_Report&id=2000-008

Two points came up outside the presentation. One was that it would be useful to have an argument for a LC based on seeing both nothing and lots with LHC therefore getting round the potential fatal wait for the LHC results before deciding to build. The other was the consensus that 3 TeV would not be realised without going through a less demanding lower energy phase.

4. Main introduction (JG)

This was a PPC initiative not PPARC. It should be treated like an experimental proposal and it would go through the PPC to the executive.

4.1 SR2000 Bid

During the discussion it was agreed that a number of issues needed clarifying with Halliday/EPSRC regarding the bids for money from the “£44M Basic Technology” fund administered by EPSRC.

1. How many research councils did the fund cover?
2. How will the money be allocated?
3. The details of how the bid progresses through the system?

Action: JG

The time scale dictates that a report has to go to PPC at the end of March. So a first draft should be available in about one months time. It should cover

1. Physics objectives
2. Detector
3. Accelerator R&D

From the bids to SR2000 already it is understood that these three combined should amount to something like £6-7 M. The report should be approximately 15 pages long. We may be invited to present the proposal to PPC at the meeting 30th March. It has to have a 5-year overview but is based on the 2-year bid for 2002-2004.

The community support would be gauged after the report end of March. A community meeting may be held or PPC may contact the community.

4.2 SR2003 Bid

This is a report to inform Ian Halliday to justify a substantial bid for years 2004-2007 when it is envisaged that the UK may be making a 10% contribution to an e+e- linear collider. This means a bid for ~£100M covering the same three areas as above.

This report is far more speculative and will be more broad brush. At this stage it will have to be largely generic to all the LC proposals, although a strategy might be to define support for say the TESLA project and realign later in the light of developments. The report at the end of 2001 would have many cycles before final submission to OST April/May 2003. This time-scale gives some opportunity for iteration and amendment, as direction internationally is determined. It was noted that although the UK contribution would be around 10% the U.K. could bid to contribute >10% of the detector.

There must be a strong UK signature to the proposals with a flavour of driving rather than following. It would be useful to indicate any possible industrial contacts and interests.

JG stated that it would not be necessary for us to gather names of supporters but community support was indeed important.

5. Allocated Tasks

GB presented a breakdown of the major areas and assigned panel members to these areas. This breakdown was accepted by the members and will be attached to these minutes (see below). **Action: GB**

6. Discussion

It was mentioned that the LTSR is on the web http://www.pparc.ac.uk/rs/pp/sp/ppltsr.asp.
That we should publicise our remit. PB agreed that he could extend his already existing web site to handle a "panel" web site. This could have electronic copies of presentation etc. **Action: PB**

The recent US white paper “The Case for a 500 GeV e+e- Linear Collider” was mentioned as required reading for the committee and can be found at http://uk.arXiv.org/abs/hep-ex/0007022 **Action: All**

TG distributed copies of the proposal for the Centre for Accelerator Science Imaging and Medicine (CASIM).

PB distributed copies of the September 2000 “Statement of Interest in a High-Energy Linear e+e- Collider.”

7. Next meeting

The frequency of the meeting would be determined by the required work. The next meeting should be early – mid February i.e. halfway to the March deadline. GB would determine the date based on an assessment of availability. The meeting would move around and it might be useful to target hosts without panel member representation so that support can be sought and information can be provided at the same time.

Action: GB

Agreed Allocated Tasks

The division of tasks for drafting the main sections of the reports was agreed as:

Beam Delivery System: Phil B.
Damping rings: Sue S.
Generic Technologies (plus FEL?): Tim G.
Experimental Programme: Jordan N and Nicolo de G
Physics Case: Mike S. and Graham W.
UK Context: J.Butterworth.

These people should gather material, including cost estimates, and draft the first versions of their respective sections in time for the next meeting (date to be announced).

In order to keep a coherent story with the international labs and to co-ordinate their input to our case, we agreed that a couple of contact persons per lab would be helpful, to channel communications and avoid conflicts of information flow. These people should discuss whom to approach and when and to report back any new developments to this panel

CERN: Graham W., Jon B.
DESY: Grahame B., Tim G.
KEK/SLAC: Phil B, Jordan N.