

Purpose of Meeting & News Update

Jim Clarke
ASTeC, STFC Daresbury
Laboratory



- Review studies since the last meeting (Sept 07)
- Assess R&D requirements for whole of positron source
 - Generate prioritised list
 - Take account of reduced resource level when estimating timescales
- Assess possible cost reduction measures
 - Agree list of possible measures
 - Put list into priority assessment order
 - Agree how to take priority items forward
- Discuss new work breakdown structure
 - Earlier structure no longer viable
 - Reduced number of WPs to reflect reduced resource

- STFC fund ILC in the UK
- Dec 07 - Delivery Plan Published
 - ➔ “We will cease investment in the International Linear Collider. We do not see a practicable path towards the realisation of this facility as currently conceived on a reasonable timescale.”
- Negotiation with STFC
- Apr 08
 - ➔ £1M program agreed for generic linear collider
 - ➔ How this will be split not agreed in detail
 - ➔ Positron source in total ~6 FTEs
 - Funded by STFC and Universities
- I am prepared to continue as Positron Source Area Leader

- Dec 07 - Budget announcement effectively suspended ILC work until Oct 08
- Announced budget from Oct 08 looks ok but...
 - Election year so delays predicted in implementation
 - Positron source lower priority than other areas
 - At zeroth order no positron source efforts in US
- Negotiation likely to help to retain key skills but only at ~2FTEs total (for generic studies)
- Situation for NSF similar at present
 - Long term impact on Cornell ?

- EDMS stands for “**Electronic Document Management System**”,
- Meaning, software systems that provide an orderly way of organizing a large number of documents over the lifespan of a project, providing mechanisms for revisions, traceability, searching, etc.
- What is implemented at ILC/GDE is “**Teamcenter**” (commercial product). It has been originally customized for use at DESY for EuroXFEL. Then it has been re-customized for ILC/GDE.
- Lead Developer : Lars Hagge (DESY)
- Details at <http://ilcagenda.linearcollider.org/materialDisplay.py?contribId=38&sessionId=53&materialId=slides&confId=2432>

- **Mission of EDMS for GDE during TDP:**
 - ➔ Provide the GDE with a group-wide platform with consistent interface and consistent rules, on which we
 - ➔ Create / renew / archive / manage / distribute / share,
 - ➔ ALL documents that describe the accelerator design / development and cost studies.
- **What this means is:**
 - ➔ All documents, e.g. Design specs, Parameter tables, Design memos, Study memos, Cost docs, etc are to be created / renewed / archived / managed / distributed /shared on EDMS.

- Positron Source is a “EDMS Team”
- I am the “Team Leader”
- Ian Bailey is the “Deputy Team Leader”
 - ➔ Ian is trained to Power User level so is our expert!
 - ➔ All institutes should/will also have an expert
- You are all “Team Members” and will have access rights to our area

- The first task is to upload the background material and audit trail for the RDR design

- Held Oct 07 at Daresbury
 - The RDR design was reviewed but R&D needs were not addressed
 - Cost estimate was assessed and a number of possible cost reduction ideas presented
 - WP organisation was discussed
-
- See talks and minutes/actions at <http://ilcagenda.linearcollider.org/conferenceDisplay.py?confId=1859>

- In no particular order ...
- Change undulator location to end of main linac
- Change underlying assumption of yield of $1.5 e^+$ in DR for every e^- in undulator
- Reduction of DR acceptance allowed
- Reduce undulator chicane offset from 2.5m to $<1m$
- Use dog-leg instead (linacs no longer coaxial)
- Use 3 bump insert
- Maximise e^+ polarisation to increase effective luminosity, enabling scaling back of ILC parameters
- Remove keep alive source
- ...