



UK ILC-Related R&D



G. A. Blair

EGDE Meeting, DESY

10th May 2006

- LC-ABD Current Programme
- Future prospects

UK funding for accelerator science for particle physics 2004 - 2007

UK funding agency, PPARC, secured from Govt. £11M for
'accelerator science' for particle physics.

Spend period April 04 – March 07

New allocations made:

ILC-Beam Delivery £7.2M from PPARC +
 £1.5M from CCLRC

2 university-based accelerator institutes
(Cockcroft Institute + John Adams Institute)

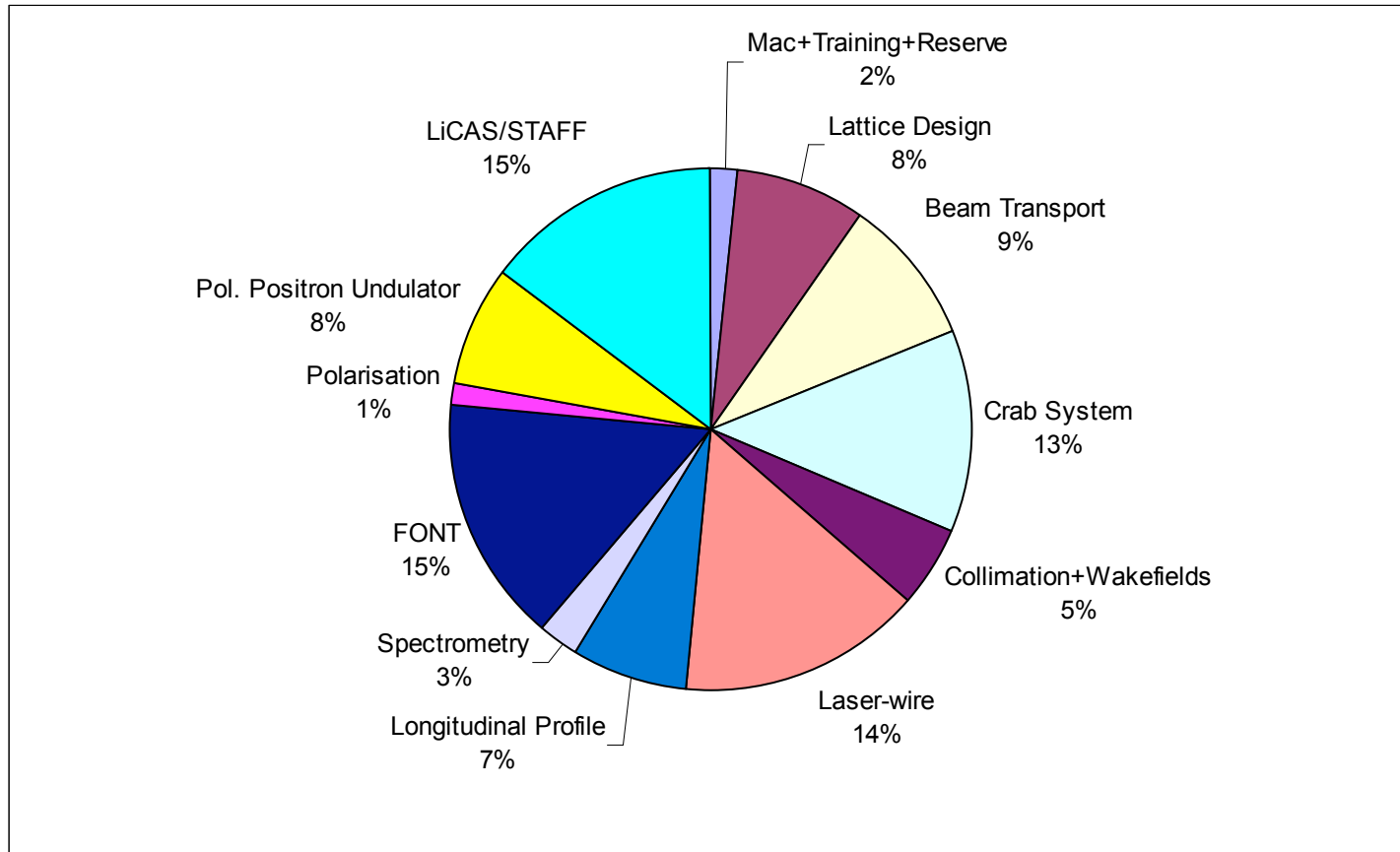
Present situation for ILC

- PPARC: £9M (includes rolling grant)
- CCLRC: £1.5M
- EUROTeV: £2M

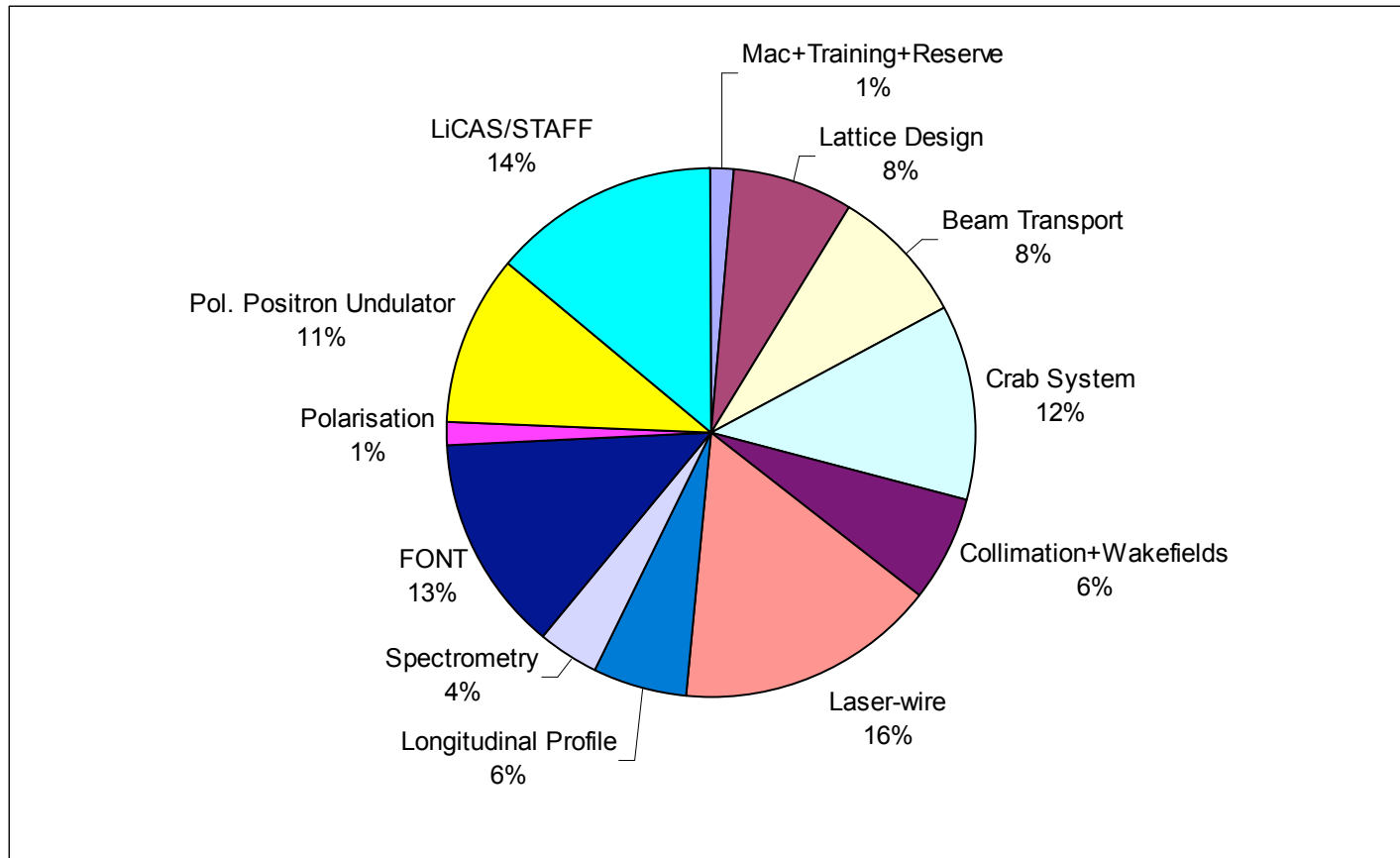
EUROTeV runs to Dec 2007

So currently the UK ILC programme is operating on ~ £4.2M p.a.

Project Totals (PPARC+CCLRC only)



Current Project Totals (inc. EU)



UK LC-ABD Current Work Packages

1. Lattice design and beam simulations (D. Angal-Kalinin)
2. Advanced beam diagnostics (G. Blair)
3. Alignment and survey (A. Reichold)
4. Final focus luminosity stabilisation and spectrometry (P. Burrows)
5. e⁺ undulator, crab cavity system, wakefields/collimators (M. Poole)

Preliminary Proposal (under review): New WP structure

| Work Package | Current (£M) | Comments |
|-------------------------|--------------|--|
| Training + MAC+ reserve | 0.18 | |
| 1 Beam-line Design | 4.27 | Includes collimation + crab system+ optics and simulation. |
| 2 Diagnostics | 2.71 | Excludes polarisation |
| 3 Surv + align. | 1.74 | Includes STAFF |
| 4 Lumi Stabilisation | 2.09 | Currently within same WP |
| 5 Energy Spectrometry | | |
| 6 Polarisation | 1.50 | Includes positron undulator |
| 7 Beam Dumps | small | New |
| 8 Damp. Rings | 0 | New |
| 9 LINAC | 0 | New |

Total £12.5M (inc. EU)

Schedule

- LC-ABD phase 1 ends on 31st March 2007; but some posts will extend beyond due to late starts.
- New funding is being sought for Apr 2007-March 2010.
- We can expect overall funding approximately similar to current volume levels (fEC issues).
- We must send to PPARC by **13th July 06**.
- Peer review starts in September 2006.