

Work Packages and Organisational Structure

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Work Packages Proposed

- Undulator system (everything in the ~150m)
- Target System
- Capture Magnet (design and possible prototype of selected type)
- RF Systems (capture RF and other linac systems)
- Photon & positron collimation and dumps
- Polarisation specific issues (polarimetry, spin preservation, spin rotators)
- Auxiliary positron source (keep alive)
- Remote Handling (and target hall arrangement)
- System Integration (put all the bits together to form a consistent design and liaise with rest of ILC, start to end simulations)
- Lattice design (electron insert & positron transport to DR)
- Compton Source

Work Package Allocation Process

- Transparent process
- Respecting inter-regional balance and existing institutional programs
- Expressions of Interest have been requested from institutes who want to work on particular aspects of the positron source
- Asking what resources they are likely to be able to provide
- Not a firm commitment at this stage
- All EOI are public by default

Template

| Positron Source work packages | X | FTE per year | Equipment total | Collaborators | Brief description of proposed contribution |
|--|---|--------------------|--------------------|---------------|--|
| Undulator System | | | | | |
| Target System | | | | | |
| Capture Magnet (OMD) | | | | | |
| RF Systems | | | | | |
| Collimation (Photon & positron) and dumps | | | | | |
| Polarisation specific issues (polarimetry, spin preservation, spin rotators) | | | | | |
| Auxiliary positron source (Keep Alive) | | | | | |
| Remote Handling and target hall arrangement | | | | | |
| System Integration | | | | | |
| Lattice design | | | | | |
| Compton Source | | | | | |

Work Packages

- After EOI are collated, work package teams will be assembled and responsibilities proposed
- WP leaders will draft task list and schedule
- Then need MOUs etc

EOI Responses

- Responses so far

| Positron Source EOI Summary | | | | | | | | | | | | | |
|--|-------------------------|------------|-------------|----------|---|---------------|-------------|-----------|-----------|-------|------|------|----------|
| | Institutes Contribution | | | | FTEs per year plus total equipment budget | | | | | | | | |
| Workpackages | ANL | BNL | Cornell | DESY | Durham | KEK/Hiroshima | Kharkov IPT | LAL | Liverpool | LLNL | ORNL | SLAC | STFC |
| Undulator System | 0.6+260 K\$ | | 3.0+170k \$ | | | | | | | | | | 1.5+60k€ |
| Target System | 0.3 | | | 0.2+2k€ | | | 3 | | | 1 | | | 1+150k€ |
| Capture Magnet (OMD) | 1 | | | | | | | | | 0.5 | | | |
| RF Systems | | | | | | | | | | | | | |
| Collimation (Photon & positron) and dumps | | | | 0.1+1k€ | | | | | | | | | |
| Polarisation specific issues (polarimetry, spin preservation, spin rotators) | | | | 1.5+60k€ | | | | | | | | | |
| Auxiliary positron source (Keep Alive) | | | | | | 5.3+750k\$ | | | | ? 0.1 | | | |
| Remote Handling and target hall arrangement | | | | 0.2+1k€ | | | | | | 0.1 | | | |
| System Integration | | | | 0.2+6k€ | | | | | | 0.25 | | | 2 |
| Lattice design | | | | | | | | | | | | | 0.5 |
| Compton Source | 0.1 | 1.0+225k\$ | | | | 3.8+1000k\$ | 5 | 6.5+150k€ | | | | | |

Areas probably with enough interest

- This is my best guess with present information
- Undulator
- Target (baseline solution)
- RF Systems
- Collimation in undulator
- Polarimetry, spin preservation, spin rotators
- System integration
- Lattice design
- Compton source

Areas of Concern

- Capture magnet engineering
- Dumps
- Auxiliary positron source (if required)
- Remote handling
- Collimation of photon drive beam & positrons