PID organization for TDR

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- Two paths followed in parallel:
  - Barrel PID
    → Priority
  - Forward PID
    → New and hence attractive
- Main issues: manpower & money

Barrel PID

- Decision between the 2 SOB designs or keep them both alive as long as possible?
  - Option #1: fDIRC with a fused silica 'small' (×1/10) SOB
    → SLAC: optical design, SOB mechanical design, tests with bar box #0, support
    → Cinci: simulation
    → Padova: mechanical design
    → Money needed (LDRD proposal @ SLAC, decision by Fall)
    → Manpower is too short: same people in all boxes!
  - Option #2: DIRC-like design with new SOB
    → SLAC: optical design, choice of SOB fluid (oil vs. water)
    → Padova: mechanical design

→ In both cases, need to find a firm/lab which would build the new SOB

- Quartz bars QA
  - SLAC: laser setup to check each bar (tests to be done at each step of the transfer)
    → Setup to be ready by February 2010
  - Orsay: BaBar dimuon-based tests
    → Conclusion expected in the coming months

Barrel PID

- Disassembly in IR2, storage, shipment and reinstallation in the SuperB detector
  - SLAC: engineering in progress, tests of fixtures under way already
    bars removal from BaBar, storage in a temporary container
    moving to shipment-designed container, arrangement for air transport
  - Padova: engineering on the Italian side

  → Need more manpower to handle the overal process

  → Hot issue as early as Spring 2010

- Electronics
  - SLAC: fDIRC prototype, tests in CRT
  - Hawaii: BLAB analog memory chip
  - Orsay: barrel TDC & analog chip
  - Ljubljana: aging tests

  → R&D program well underway and future steps clearly defined

  → SuperB co-funding urgently needed at Orsay

Forward PID

- Detector design
  - SLAC: TOF
  - Nsk: aerogel RICH

  → First designs presented in the parallel sessions

  → next step is mechanical integration (Orsay + ?): requires accurate BaBar drawings!

  → Huge uncertainties in the background levels, radiation studies needed

- Performances studies in Fast Sim
  - Orsay: TOF
  - Nsk: aerogel

- Electronics: SLAC, Hawaii, Orsay as usual…

- Extensive R&Ds needed on photodetectors

- Manpower is very scarse; several institutions willing to contribute but startup slow
- Money is an issue as well: $$$ R&D needed