

# LC Test Beam Activities

*VLCW06*

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- Facility updates
- Beam Test Activities
- FNAL ILC-Task Force
- Conclusions

# Facilities Update

- FNAL:
  - MTBF was brought back up June 2006 after a 14 week shutdown
  - MTBF is offered to a few existing programs
  - An upgrade proposal has been made and the detailed schedule is still being worked out for it
    - Improvement of low E secondary beam rates → See Erik's talk
    - Possible MC beam line availability for additional activities
- EUDET:
  - Kicked off on Feb.15 – 17 at DESY
  - Will utilize DESY and CERN facilities
- CERN:
  - Offers beam tests this year
  - Next year's schedule is unclear
- KEK facility has been shutdown since end of 2005 but ..
  - A new proposal for 3GeV electron beam using bremsstrahlung photons from KEK-B HER

Beam Test Activities

# Beam Test Activities

- Many calorimeter activities
  - DHCAL (Repond)
    - RPC DHCAL
      - Three ANL+IU RPC Chambers at MTBF early 2006 (FNAL T955)
      - Plan to go in again in the fall 2006 and slice test in early 2007
    - GEM DHCAL
      - One 30cmx30cm chamber exposed to high intensity, low E electron beam at KAERI in May 2006
      - Plan to expose to hadron beams at MTBF in the fall 2006 and slice test in early 2007
    - NIU TCMT
      - One layer of cassette exposed to beam at DESY in fall 2005
      - Exposed to hadron beams at MTBF early 2006 (FNAL T957)

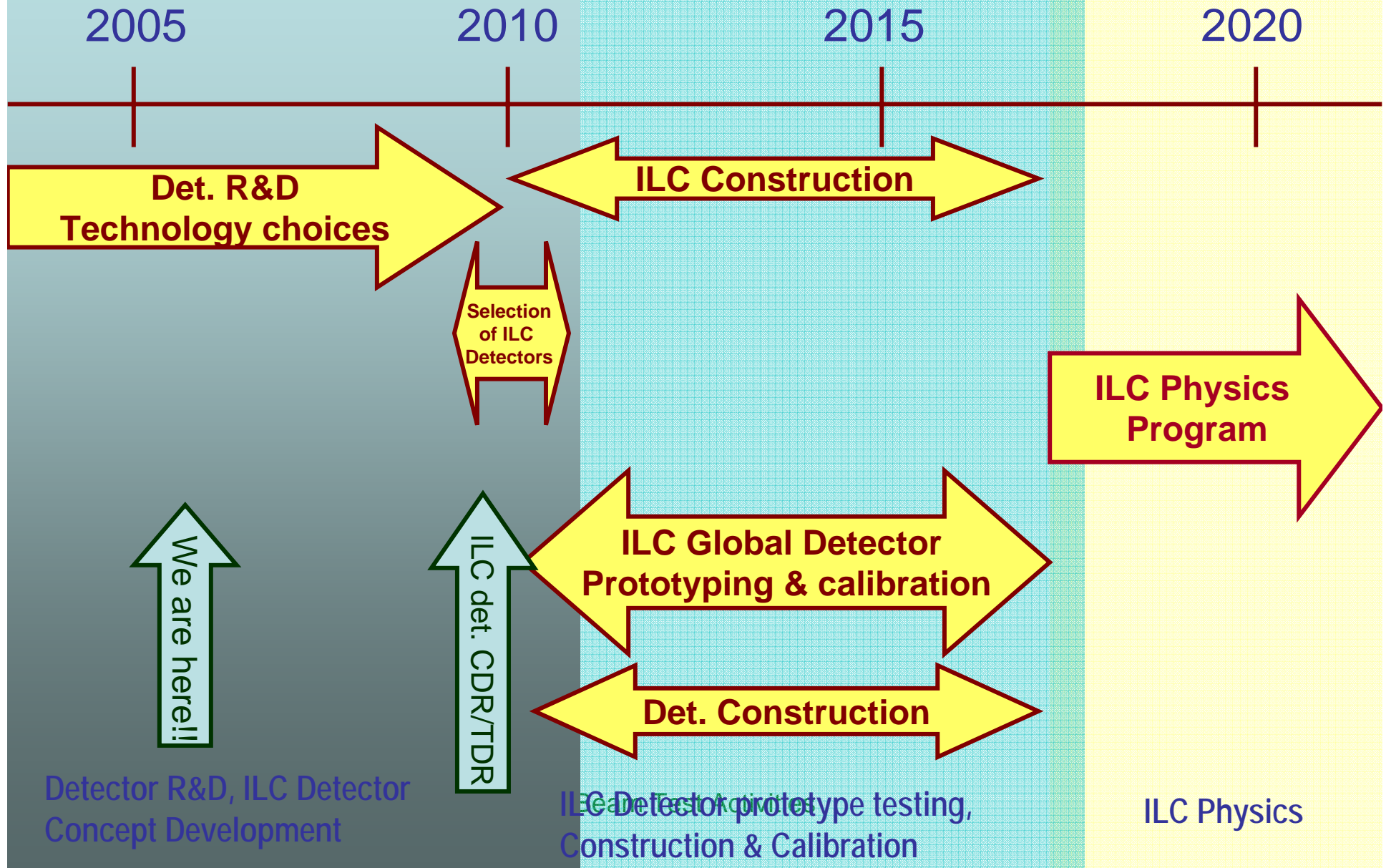
# Beam Test Activities

- CALICE (White)
  - Si-W ECAL and Scintillator AHCAL installed at CERN SPS H6 beam line
  - Will be exposed to beams in three distinct periods, totaling 8 weeks
- ASIAN Scintillator-Tungsten ECAL
  - Plans to come in mid to end 2007 to FNAL for beam tests
- Muons
  - FNAL-IU+WSU scintillator muons (Abrams) ongoing at MTBF (FNAL T956)
- Tracking:
  - TPC group wants high E, multi-particle beam at FNAL in 2007
  - No US group plans in the immediate future but some Si tracker activities anticipated in 2007
- Vertex: LBNL Vertex group using LBNL radiation facility
  - Will need pion beams in late 2007 or early 2008
    - $E_{\pi} > 5\text{GeV}$  needed

# FNAL ILC-Task Force

- FNAL Directorate initiated TF on increasing FNAL's contribution to ILC and its chance to bid for hosting it
- Test Beam Facilities is one of the working group tasks
  - Made several initial draft recommendations
    - Upgrade of MTBF to meet needs in the immediate future
    - Availability of MCenter for the intermediate future
    - Develop plans to gradually convert Neutrino beam lines to prepare for ILC activities in 3 – 5 year time scale
    - Boost TB activities to a level of experiments
    - Establish beam tests as scientific programs
- The working group needs to collect your requirements for beam tests

# LC Detector Time Line





MT

MC

NWA

Lab-E

KTeV

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Pointer 41°50'52.62" N 88°14'58.77" W elev 744 ft

Streaming ||||| 100%

Eye alt 5488 ft

# Conclusions

- A lot of beam test activities since the last meeting
  - Still calorimeter driven but other detectors will pick up speed soon
- Some good news in funds to support large scale beam test activities
- A lot more are expected in the near future
- Limited facilities' availability
- Need better coordination within ourselves